

CITY OF ELK GROVE
DEVELOPMENT SERVICES DEPARTMENT

**Waterman Brinkman Logistics Center Amendment
Project
(PLNG24-021)**

**Administrative CEQA Addendum to the Waterman Brinkman
Logistics Center Project Initial Study/Mitigated Negative
Declaration**



February 2025



1501 Sports Drive, Suite A, • Sacramento • CA • 95834
Office 916.372.6100 • Fax 916.419.610

TABLE OF CONTENTS

A.	INTRODUCTION AND BACKGROUND	1
B.	SUBSEQUENT ENVIRONMENTAL REVIEW.....	1
C.	PROJECT DESCRIPTION	2
D.	CEQA ANALYSIS APPROACH.....	7
E.	ENVIRONMENTAL IMPACT COMPARISON	9
	<i>I. Aesthetics.....</i>	<i>11</i>
	<i>II. Agriculture and Forestry Resources.....</i>	<i>17</i>
	<i>III. Air Quality.....</i>	<i>20</i>
	<i>IV. Biological Resources.....</i>	<i>30</i>
	<i>V. Cultural Resources.....</i>	<i>44</i>
	<i>VI. Energy.....</i>	<i>47</i>
	<i>VII. Geology and Soils.....</i>	<i>50</i>
	<i>VIII. Greenhouse Gas Emissions.....</i>	<i>56</i>
	<i>IX. Hazards and Hazardous Materials.....</i>	<i>62</i>
	<i>X. Hydrology and Water Quality.....</i>	<i>68</i>
	<i>XI. Land Use and Planning.....</i>	<i>75</i>
	<i>XII. Mineral Resources.....</i>	<i>77</i>
	<i>XIII. Noise.....</i>	<i>79</i>
	<i>XIV. Population and Housing.....</i>	<i>91</i>
	<i>XV. Public Services.....</i>	<i>93</i>
	<i>XVI. Recreation.....</i>	<i>96</i>
	<i>XVII. Transportation.....</i>	<i>98</i>
	<i>XVIII. Tribal Cultural Resources.....</i>	<i>103</i>
	<i>XIX. Utilities and Service Systems.....</i>	<i>105</i>
	<i>XX. Wildfire.....</i>	<i>111</i>
F.	SOURCES	113

Appendices:

- Appendix A: Air Quality and Greenhouse Gas Modeling Results
- Appendix B: Drainage Report
- Appendix C: Noise Addendum
- Appendix D: VMT Analysis
- Appendix E: Left Turn Assessment

WATERMAN BRINKMAN LOGISTICS CENTER ADDENDUM

A. INTRODUCTION AND BACKGROUND

The City of Elk Grove approved the Waterman Brinkman Logistics Center Project (PLNG20-016) and associated Initial Study/Mitigated Negative Declaration (IS/MND) in 2022. The 2022 IS/MND evaluated development of two one-story industrial/flex buildings. Building A, located on Lot A, was anticipated to be approximately 252,503 square feet (sf), and Building B, located on Lot B, was anticipated to be approximately 164,900 sf. Building A was anticipated to include 198 parking stalls, 69 dock positions, and four grade-level roll up doors. Building B was anticipated to include 165 standard parking stalls, 49 trailer parking stalls, 35 dock positions, and six grade-level roll up doors. In addition to the warehouses, an 8.92 acre-foot flood control detention basin, as well as an access road, was anticipated to be developed on approximately 3.5 acres of land in the western portion of Lot A to address drainage issues associated with the northwestern corner of the Site. The project required approval of a Major Design Review.

The currently proposed Waterman Brinkman Logistics Center Amendment Project (the “Project”) would revise the originally approved plans by increasing the building area for Building B from 164,900 sf to 180,894 sf. The number of dock positions for Building B would decrease from 35 to 30, and the number of grade-level roll up doors would decrease from six to four. The total number of parking stalls (including trailer parking) for Building B would also decrease from 214 to 208 stalls. In addition, Building B’s position would be rotated 180 degrees. As a result, Building B’s loading docks would be located on the eastern façade of the building and face Waterman Road. Building A would not be altered.

The currently proposed Project would require City approval of a Major Design Review Amendment to revise the site plan and elevations to have the docks front-facing along Waterman Road. The Project would also include an Extension to extend the expiration date on the previously approved entitlements from July 22, 2025 to July 22, 2028. A detailed description of the currently proposed Project is provided in the following sections.

B. SUBSEQUENT ENVIRONMENTAL REVIEW

This Addendum to the 2022 IS/MND has been prepared in accordance with the California Environmental Quality Act of 1970, Public Resources Code (PRC) Section 21000 et seq., as amended (CEQA) and the Guidelines for Implementation of the California Environmental Quality Act, California Code of Regulations (CCR) Title 14, Section 15000 et seq. (CEQA Guidelines). Pursuant to CEQA Guidelines Section 15164(a), a lead agency or responsible agency shall prepare an Addendum to a previously certified EIR if some changes or additions are necessary, but none of the conditions described in Section 15162 calling for preparation of a Subsequent EIR (SEIR) or Negative Declaration have occurred. Pursuant to CEQA Guidelines Section 15164(b), an Addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary.

The analysis within this document demonstrates that the proposed modifications to development of the Site with the revised site plan do not trigger the criteria set forth in CEQA Guidelines Section 15162. Thus, an Addendum is the appropriate CEQA document. See Section D below for further discussion on this topic.

Scope of the Addendum

This Addendum includes the following sections that will address various aspects about the currently proposed Project:

- Project Background;
- Project Description, including a discussion of the Project location, existing setting, surrounding land uses, Project components, and required public approvals;
- CEQA Analysis Approach; and
- Environmental Impact Comparison to the 2022 IS/MND, using the criteria established by the current CEQA Guidelines.

C. PROJECT DESCRIPTION

The following provides a description of the Site's current location and setting, as well as the currently proposed Project components and the discretionary action required for the Project.

Project Location, Existing Setting, and Surrounding Land Uses

The 29.5-acre Site is located along Waterman Road near Brinkman Court, in the City of Elk Grove, California (see Figure 1). The Site consists of two separate lots: Lot A and Lot B. The term "Site" hereafter refers to both Lot A and Lot B. Lot A is approximately 19.51 acres, and is identified by Assessor's Parcel Numbers (APNs) 134-0100-084 and 134-0100-085. Lot B is approximately 9.99 acres, and is identified by APN 134-0181-041 (see Figure 2). Pursuant to the City's General Plan, the Site is designated Heavy Industrial (HI) and is zoned Heavy Industrial (HI).

Lot A historically contained the Kingsford Charcoal Company briquet factory, which operated between the mid-1960s and 1989. Lot B historically supported a rural residence, associated outbuildings, and vacant farmlands from at least the 1930s through the 1960s. By the 1970s, the former residence and outbuildings were razed, and the property was part of a larger area of land associated with the Kingsford Charcoal plant. The existing basin in the northwestern area of Lot A was built in order to provide fire protection for the Kingsford Charcoal plant. The Kingsford Charcoal plant was demolished in the early 1990s.

Currently, the Site is vacant and undeveloped. The Site consists primarily of ruderal grasses, which are regularly disked, as well as scattered oak trees, shrubs, and annual herbaceous vegetation. Surrounding land uses include commercial development to the north, IN Self Storage and the East Elk Grove Water Treatment Plant to the east, industrial development to south and southwest, and the approved Grant Line Road Construction Aggregate Production and Recycling Facility immediately to the west of Building B and south of Building A. Union Pacific Railroad (UPRR) tracks extend in the north-south direction further to the west of the Site. West of the UPRR tracks is a stretch of vacant land, single-family residences, and Jennie McConnell Park. To the east of the Site, across Waterman Road, lies vacant land, single-family residences, and the Hudson Detention Basin. Elk Grove Creek is located to the north of Lot A.

Lot A is bound by the IN Self Storage facility, the East Elk Grove Water Treatment Plant, and the western terminus of Brinkman Court to the east, the approved Grant Line Road Construction Aggregate Production and Recycling Facility to the south, the UPRR to the west, and commercial buildings along Kent Street to the north. Lot A has a gentle slope with elevations ranging from approximately 50 feet to 43 feet. Approximately five acres at the northwest corner of Lot A is considered to be a Federal Emergency Management Agency (FEMA) Special Flood Hazard Area. As such, the northwest corner of Lot A is subject to periodic flooding.

Figure 1
Project Vicinity

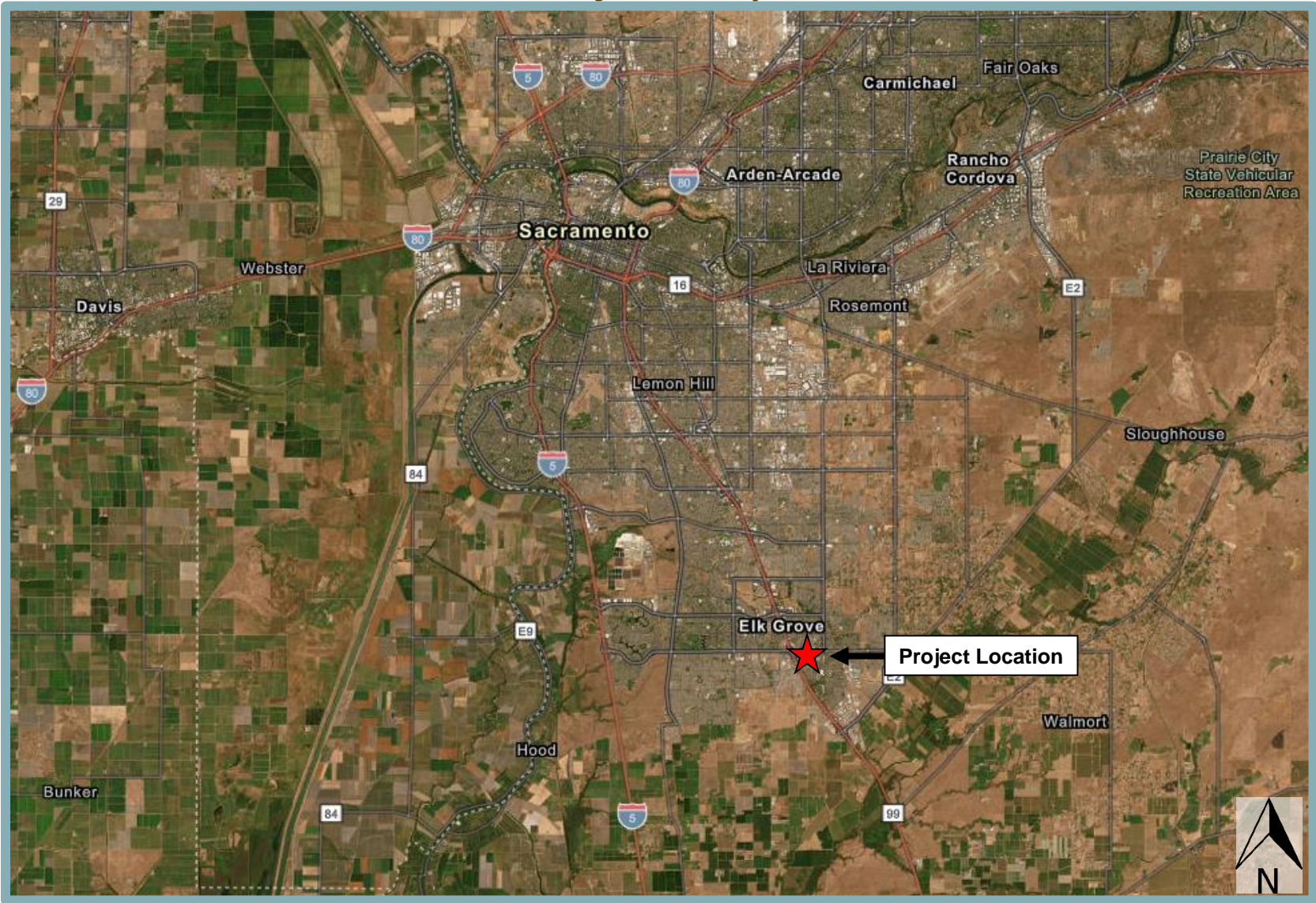


Figure 2
Site Boundaries



Lot B is bound by Waterman Road to the east, the Paramount Petroleum Asphalt Plant to the south, the approved Grant Line Road Construction Aggregate Production and Recycling Facility to the west, and the IN Self Storage facility to the north. Lot B is relatively flat, with elevations ranging from 50 feet to 48 feet.

Project Components

The Project would include revisions to Building B from what was previously approved as part of the 2022 IS/MND. In addition to the two warehouses, a flood control detention basin would be constructed on the western portion of Lot A, the design of which has been revised as part of the Project. Building A, the 20-foot-wide maintenance road/trail, landscaping components, utility infrastructure, and off-site improvements would not be altered from what was anticipated in the 2022 IS/MND. The Project components and requested approvals are discussed in detail below.

Building B

The currently proposed Project would revise the site plans from what was anticipated in the 2022 IS/MND and increase the building area for Building B from 164,900 sf to 180,894 sf. The number of dock positions for Building B would decrease from 35 to 30, and the number of grade-level roll up doors would decrease from six to four. The total number of parking stalls (including trailer parking) for Building B would also decrease from 214 to 208 stalls. In addition, Building B's position would be rotated 180 degrees. As a result, Building B's loading docks would be located on the eastern façade of the building and face Waterman Road.

Under the currently proposed Project, Building B would be an approximately 180,894-sf, one-story warehouse building on Lot B. The building would include 182 vehicle parking stalls, 26 trailer stalls, 30 dock positions, and four grade-level roll up doors (see Figure 3). The tenants for Building B are also currently unknown, but the building is intended to serve as a flex space (i.e., a combination of warehouse and office space) that may be divisible into six separate tenants.

Access to Lot B would be provided from three driveways from Waterman Road. The Project would provide a landscape berm in the landscape corridor along Waterman Road to provide visual screening. The internal drive aisles would be 25 feet wide where parking occurs, and 20 feet wide where parking does not occur. New six-foot-wide pedestrian walkways and bicycle racks would be provided along the building frontage.

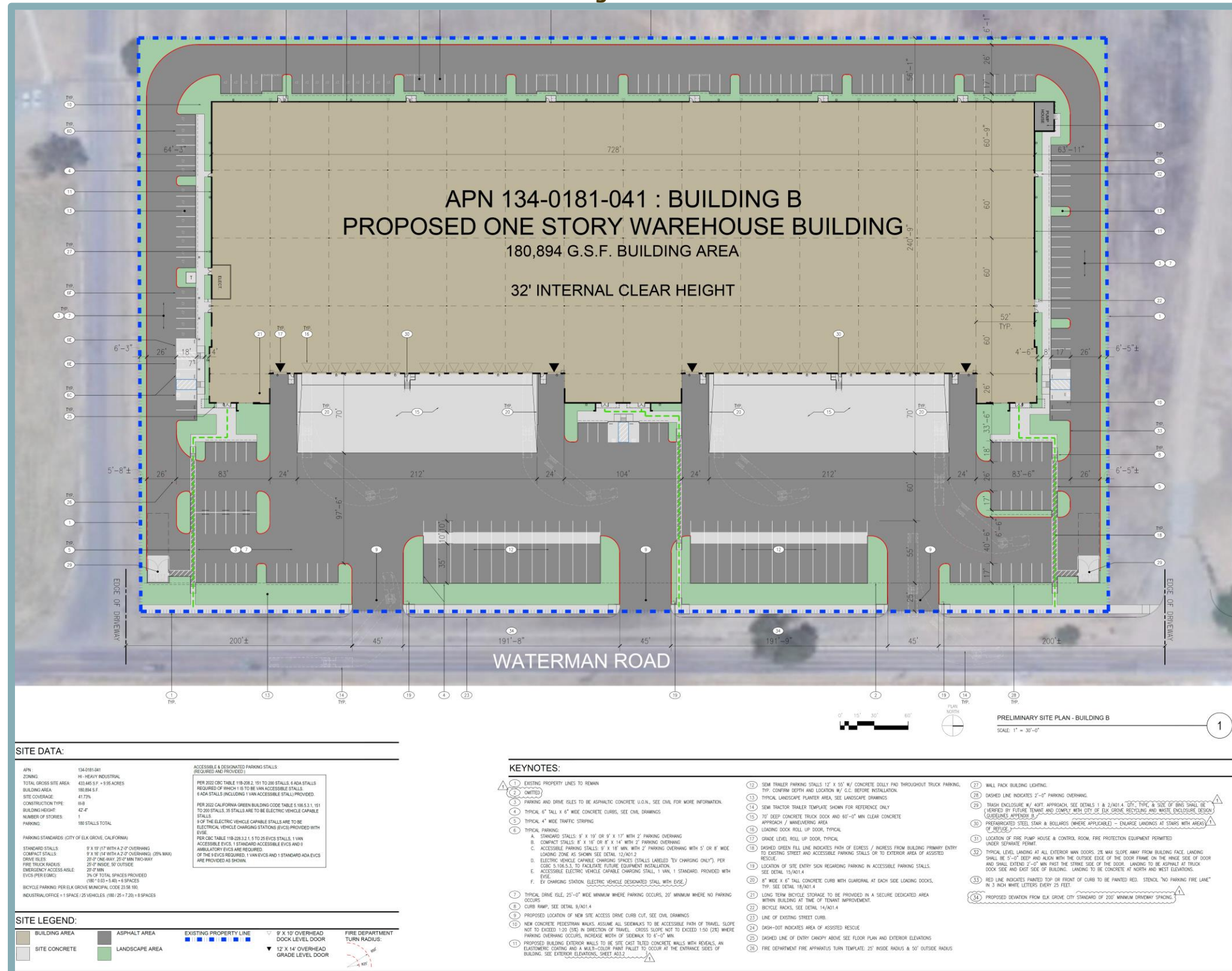
Flood Control

Portions of the Site are subject to ponding and nuisance flooding due to the on-site topography and soil conditions. Additionally, the northwest corner of Lot A is located within a 100-year floodplain. As a result, the foundation of Building A would be placed on imported fill to lift the building foundation out of the floodplain. To address the effects of filling the existing on-site floodplain, the Project would install a flood control detention basin.

Since the approval of the Conditional Letter of Map Revision (CLOMR) from FEMA, additional hydraulic modeling has led to the conclusion that the proposed stormwater detention basin could be used to manage both on-site runoff and provide peak flow attenuation along Elk Grove Creek. Due to the mutually beneficial nature of the currently proposed design, the previously proposed underground detention system included in the 2022 IS/MND as part of the 2022 project has been abandoned.

The proposed basin would be approximately 615 feet long and 120 feet wide, and would provide approximately 10 acre-feet of storage.

**Figure 3
 Building B Site Plan**



SITE DATA:

APN:	134-0181-041	ACCESSIBLE & DESIGNATED PARKING STALLS (REQUIRED AND PROVIDED):
ZONING:	HI - HEAVY INDUSTRIAL	PER 2022 CBC TABLE 11B-292.2.1(1) TO 292.2.1(4) 6 ADA STALLS REQUIRED OF WHICH 1 IS TO BE VAN ACCESSIBLE STALLS.
TOTAL GROSS SITE AREA:	433,445 SF + 9.95 ACRES	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STALLS.
BUILDING AREA:	180,894 S.F.	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STALLS.
SITE COVERAGE:	41.73%	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
CONSTRUCTION TYPE:	III-B	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
BUILDING HEIGHT:	42'-0"	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
NUMBER OF STORIES:	1	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
PARKING:	180 STALLS TOTAL	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
PARKING STANDARDS (CITY OF ELK GROVE, CALIFORNIA):		PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
STANDARD STALLS:	9' X 19' (17' WITH A 2'-0" OVERHANG)	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
COMPACT STALLS:	9' X 16' (14' WITH A 2'-0" OVERHANG) (50% MAX)	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
DRIVE ISLES:	25'-0" MIN. W/ 25'-0" MIN. TYP. W/ 25'-0" MIN. W/ 25'-0" MIN.	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
FIRE TRUCK RADIUS:	25'-0" MIN. W/ 25'-0" MIN. W/ 25'-0" MIN.	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
EMERGENCY ACCESSIBLE EVCS (PER EMAC):	3% OF TOTAL SPACES PROVIDED	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
BICYCLE PARKING PER ELK GROVE MUNICIPAL CODE 21.58.100:	180' X 15' X 15' X 8 SPACES	PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.
INDUSTRIAL OFFICE + 1 SPACE / 25 VEHICLES (180' X 25' X 20') + 8 SPACES		PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE S 19E5.3.1.1, 151 TO 200 STALLS, 30 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STATIONS (EVCS) PROVIDED WITH EVSE.

SITE LEGEND:

BUILDING AREA	ASPHALT AREA	EXISTING PROPERTY LINE	8' X 10' OVERHEAD DOCK LEVEL DOOR	FIRE DEPARTMENT TURN RADIUS
SITE CONCRETE	LANDSCAPE AREA	PROPOSED PROPERTY LINE	12' X 14' OVERHEAD GRADE LEVEL DOOR	

KEYNOTES:

- 1 EXISTING PROPERTY LINES TO REMAIN (DASHED)
- 2 PARKING AND DRIVE ISLES TO BE ASPHALT CONCRETE (S.G.A.). SEE CIVIL FOR MORE INFORMATION.
- 3 TYPICAL 4" TALL X 4" WIDE CONCRETE CURBS. SEE CIVIL DRAWINGS.
- 4 TYPICAL 4" WIDE TRAFFIC STRIPING
- 5 TYPICAL PARKING:
 - A. STANDARD STALLS: 9' X 19' OR 9' X 17' WITH 2' PARKING OVERHANG
 - B. COMPACT STALLS: 9' X 16' OR 9' X 14' WITH 2' PARKING OVERHANG
 - C. ACCESSIBLE PARKING STALLS: 9' X 16' MIN. WITH 2' PARKING OVERHANG WITH 5' OR 8' WIDE LOADING ZONE (AS SHOWN). SEE DETAIL 12/A01.2.
 - D. ELECTRIC VEHICLE CHARGING SPACES: STALLS LABELED "EV CHARGING ONLY". PER CODE S.19E5.3.1 TO FACILITATE FUTURE EQUIPMENT INSTALLATION.
 - E. ACCESSIBLE ELECTRIC VEHICLE CHARGING STALL: 1 VAN, 1 STANDARD PROVIDED WITH EVSE.
 - F. EV CHARGING STATION: ELECTRIC VEHICLE DESIGNATED STALL WITH EVSE.
- 6 TYPICAL DRIVE ISLE, 25'-0" WIDE MINIMUM WHERE PARKING OCCURS, 20' MINIMUM WHERE NO PARKING OCCURS.
- 7 CURB RAMP. SEE DETAIL 8/A01.4
- 8 PROPOSED LOCATION OF NEW SITE ACCESS DRIVE CURB OUT. SEE CIVIL DRAWINGS.
- 9 NEW CONCRETE PEDESTRIAN WALKS. ASSUME ALL SIDEWALKS TO BE ACCESSIBLE PATH OF TRAVEL. SLOPE NOT TO EXCEED 1:20 (5%) IN DIRECTION OF TRAVEL. CROSS SLOPE NOT TO EXCEED 1:50 (2%) WHERE PARKING OVERHANG OCCURS. INCREASE WIDTH OF SIDEWALK TO 6'-0" MIN.
- 10 PROPOSED BUILDING EXTERIOR WALLS TO BE SITE CAST TILED CONCRETE WALLS WITH ROADS, AN ELASTOMERIC COATING AND A MULTI-COLOR PAINT PALLET TO OCCUR AT THE ENTRANCE SIDES OF BUILDING. SEE EXTERIOR ELEVATIONS, SHEET 021.1
- 11 SEMI TRAILER PARKING STALLS 12' X 55' W/ CONCRETE DOLLY PAD THROUGHOUT TRUCK PARKING. TYP. CONCRETE DEPTH AND LOCATION W/ C.C. BEFORE INSTALLATION.
- 12 TYPICAL LANDSCAPE PLANTER AREA. SEE LANDSCAPE DRAWINGS.
- 13 SEMI TRACTOR TRAILER TEMPLATE SHOWN FOR REFERENCE ONLY.
- 14 70" DEEP CONCRETE TRUCK DOCK AND 60"-0" MIN CLEAR CONCRETE APPROACH / WAREHOUSING AREA.
- 15 LOADING DOCK ROLL UP DOOR, TYPICAL.
- 16 GRADE LEVEL ROLL UP DOOR, TYPICAL.
- 17 DASHED GREEN FULL LINE INDICATES PATH OF EGRESS / INGRESS FROM BUILDING PRIMARY ENTRY TO EXISTING STREET AND ACCESSIBLE PARKING STALLS OR TO EXTERIOR AREA OF ASSISTED RESCUE.
- 18 LOCATION OF SITE ENTRY SIGN REGARDING PARKING IN ACCESSIBLE PARKING STALLS. SEE DETAIL 10/A01.4
- 19 8" WIDE X 4" TALL CONCRETE CURB WITH GUARDRAIL AT EACH SIDE LOADING DOCK. TYP. SEE DETAIL 18/A01.4
- 20 LONG TERM BICYCLE STORAGE TO BE PROVIDED IN A SECURE DESIGNATED AREA WITHIN BUILDING AT TIME OF TENANT IMPROVEMENTS.
- 21 BICYCLE RACKS. SEE DETAIL 14/A01.4
- 22 LINE OF EXISTING STREET CURB.
- 23 DASH-DOT INDICATES AREA OF ASSISTED RESCUE.
- 24 DASHED LINE OF ENTRY CANOPY ABOVE SEE FLOOR PLAN AND EXTERIOR ELEVATIONS.
- 25 FIRE DEPARTMENT FIRE APPARATUS TURN TEMPLATE: 25' INSIDE RADIUS & 50' OUTSIDE RADIUS.
- 26 WALL PACK BUILDING LIGHTING.
- 27 DASHED LINE INDICATES 2'-0" PARKING OVERHANG.
- 28 TRASH ENCLOSURE W/ 40FT APPROACH. SEE DETAILS 1 & 2/A01.4. TYP. TYPE & SIZE OF BRG SHALL BE DETERMINED BY FUTURE TOWER AND COMPLY WITH CITY OF ELK GROVE RESIDUAL AND WASTE ENCLOSURE DESIGN GUIDELINES APPENDIX B.
- 29 PREHANGING STEEL STAIR & BOLLARDS (WHERE APPLICABLE) - ENLARGE LANDINGS AT STAIRS WITH ARCS (2' MINIMUM).
- 30 LOCATION OF FIRE PUMP HOUSE & CONTROL ROOM. FIRE PROTECTION EQUIPMENT PERMITTED UNDER SEPARATE PERMIT.
- 31 TYPICAL LEVEL LANDING AT ALL EXTERIOR MAIN DOORS: 2% MAX SLOPE AWAY FROM BUILDING FACE. LANDING SHALL BE 5'-0" DEEP AND ALIGN WITH THE OUTSIDE EDGE OF THE DOOR FRAME ON THE HINGE SIDE OF DOOR AND SHALL EXTEND 2'-0" MIN PAST THE STRIKE SIDE OF THE DOOR. LANDING TO BE ASPHALT AT TRUCK DOCK SIDE AND LAST SIDE OF BUILDING. LANDING TO BE CONCRETE AT NORTH AND WEST ELEVATIONS.
- 32 RED LINE INDICATES PAINTED TOP OR FRONT OF CURB TO BE PAINTED RED. STENCIL "NO PARKING FIRE LANE" IN 3 INCH WHITE LETTERS EVERY 25 FEET.
- 33 PROPOSED DEVIATION FROM ELK GROVE CITY STANDARD OF 200' MINIMUM DRIVEWAY SPACING.

The bottom of the basin would also provide Low Impact Development (LID) features and water quality treatment for the on-site runoff for both proposed buildings, and the upper portion of storage would provide regional peak flow attenuation at Elk Grove Creek. The invert of the basin outfall structure is designed to discharge above the Elk Grove Creek Ordinary High-Water Mark (OHWM). An access road would be provided at the northern end of the basin. The total basin area, including the access road, would occupy approximately 3.5 acres of land.

Major Design Review Amendment

Pursuant to Section 23.16.080 of the City of Elk Grove Municipal Code, a major design review is required for any development within the City that exceeds 10,000 sf of building area. The purpose of the design review process is to ensure physical, visual, and functional compatibility between uses and encourage development in keeping with the desired character of the City.

A Major Design Review was approved for the project in 2022. However, the currently proposed Project would require City approval of a Major Design Review Amendment to revise the site plan and elevations to have the Building B docks facing along Waterman Road.

Project Approvals

The Project would require City approval of the following:

- CEQA Addendum;
- Major Design Review Amendment; and
- Extension to extend the expiration date on the original entitlements that were not amended from July 22, 2025 to July 22, 2028.

D. CEQA ANALYSIS APPROACH

In the case of a project proposal requiring discretionary approval by the City for which the City has certified an EIR or adopted a negative declaration for the overall project, the City must determine whether a Subsequent EIR or negative declaration is required. The CEQA Guidelines provide guidance in this process by requiring an examination of whether, since the certification of the EIR or negative declaration and approval of the proposed project, changes in the project or conditions have been made to such an extent that the proposal may result in new significant impacts not previously identified or a substantial increase in severity of previously identified significant impacts. If so, the City would be required to prepare an SEIR or negative declaration. The examination of impacts is the first step taken by the City in reviewing the CEQA treatment of the project. The following review proceeds with the requirements of CEQA Guidelines Section 15162 in mind. Section 15162 is discussed in detail below.

An Addendum to a certified EIR or approved negative declaration may be prepared if only minor technical changes or additions are required, and none of the conditions identified in CEQA Guidelines Section 15162 are present. The following identifies the standards set forth in Section 15162(a) as they relate to the Project:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration

- due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
- (a) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - (b) Significant effects previously examined will be substantially more severe than shown in the previous EIR [or negative declaration];
 - (c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - (d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Section 15162 provides that the lead agency's role in project approval is completed upon certification of the EIR or Negative Declaration and approval of the project, unless further discretionary action is required. The approvals requested as part of the Project are considered discretionary actions. Therefore, CEQA review is required.

Confirmation of Addendum

The following discussion confirms that the Project has been evaluated for significant impacts pursuant to CEQA. The discussion is meaningfully different than a determination that the Project is "exempt" from CEQA review, which is not the case. Rather, the determination here is that the Project's impacts have been considered in a previous CEQA document (i.e., the 2022 IS/MND) that was reviewed and adopted by the Elk Grove City Council and deemed a sufficient and adequate analysis of the environmental impacts of the Project. The discussion concludes that the conditions set forth in Section 15162 are not present. As such, an addendum is the appropriate environmental document for the currently proposed Project, pursuant to CEQA Guidelines Section 15164.

Changes in Circumstances

Since the adoption of the 2022 IS/MND, the City of Elk Grove has approved the Grant Line Road Construction Aggregate Production and Recycling Facility Project (PLNG21-001), located at 10000 Waterman Road. The project would operate an aggregate processing facility, and would be located immediately south of Building A and west of Building B. Pursuant to Section 15162(a)(2) of the CEQA Guidelines, this Addendum will discuss the changes in circumstances regarding the approved Grant Line Road Construction Aggregate Production and Recycling Facility Project in comparison to the conclusions of the 2022 IS/MND, as applicable. For instance, changes in the cumulative noise environment as a result of the Grant Line Road Construction Aggregate Production and Recycling Facility Project is addressed herein in Section XIII, Noise.

In addition, since adoption of the 2022 IS/MND, the protection status of burrowing owl has changed from being designated as a California Department of Fish and Wildlife (CDFW) Species of Special Concern to a candidate species for listing under the California Endangered Species Act (CESA), which temporarily affords the species protections, such as prohibitions against "take"

without permit authorization while CDFW conducts a review to confirm whether listing is warranted. This Addendum will discuss the changes in circumstances regarding the legal status of burrowing owl in comparison to the conclusions of the 2022 IS/MND, as applicable.

E. ENVIRONMENTAL IMPACT COMPARISON

The purpose of the comparison is to evaluate the categories in terms of any “**changes**” or “**new information**” that may result in a changed environmental impact evaluation. A “**no**” answer does not necessarily mean that potential impacts do not exist relative to the environmental category, but that a relevant change would not occur in the condition or status of the impact due to its insignificance or its treatment in a previous environmental document.

Explanation of Impact Evaluation Categories

Environmental Issue Area: This column presents the environmental resource area to be discussed and the relevant CEQA Guidelines Appendix G questions to be analyzed.

Where Impact Was Analyzed in the Previous CEQA Documents: This column provides a reference to the page(s) of the 2022 IS/MND (where applicable) where information and analysis may be found relative to the environmental issue listed under each topic.

Do Proposed Changes Involve New or More Severe Impacts? Pursuant to Section 15162(a)(1) of the CEQA Guidelines, this column indicates whether the changes represented by the current Project will result in new significant impacts that have not already been considered and mitigated by a previous EIR or that substantially increase the severity of a previously identified significant impact. If a “yes” answer is given and more severe impacts are specified, additional mitigations will be specified in the discussion section including a statement of impact status after mitigation.

Any New Circumstances Involving New or More Severe Impacts? Pursuant to Section 15162(a)(2) of the CEQA Guidelines, this column indicates whether there have been changes to the Site or the vicinity (environmental setting) that have occurred subsequent to the certification of an EIR, which would result in the current Project having significant impacts that were not considered or mitigated by that EIR or which substantially increase the severity of a previously identified significant impact.

Any New Information Requiring New Analysis or Verification? Pursuant to Section 15162(a)(3) of the CEQA Guidelines, this column indicates whether new information is available requiring an update to the analysis of a previous EIR to verify that the environmental conclusions and mitigations remain valid. This also applies to any new regulations that might change the nature of analysis or the specifications of a mitigation measure. If additional analysis is conducted as part of this environmental impact comparison and the environmental conclusion remains the same, no new or additional mitigation is necessary. If the analysis indicates that a mitigation requires supplemental specifications, no additional environmental documentation is needed if it is found that the modified mitigation achieves a reduction in impact to the same level as originally intended.

Discussion: A discussion of the elements of the impact is provided for each impact statement in order to support the findings. The discussion provides information about the particular environmental issue, how the Project relates to the issue, and the status of any mitigation that may be required or that has already been implemented.

Conclusion: A conclusion relating to the need for additional environmental documentation is contained in each section.

Mitigation Sections

Mitigation Measures from the Previous CEQA Documents: Applicable mitigation measures from the previous CEQA documents that apply to the changes or new information are referenced under each environmental category.

Modified Mitigation Measures: Where applicable, the mitigation measures from the previous CEQA documents have been modified for application to the Project. The modification of previous mitigation measures ensures the incorporation of relevant site-specific information to maintain potential project-related impacts at a level equal to those identified in the previous CEQA documents. Deleted text that does not apply to the currently proposed Project is shown as ~~struck through~~. New text that has been added to more specifically address the currently proposed Project components is shown in double underline.

Additional Project-Specific Mitigation Measures: If changes or new information involve new impacts, additional mitigation measures, if available and feasible, are listed under each environmental category. As will be demonstrated below, no additional project-specific mitigation measures have been identified for the currently proposed Project.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a new significant impact or a substantially more severe significant environmental impact than what was previously analyzed in the 2022 IS/MND, as indicated by the discussion on the following pages.

- | | | |
|---|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities and Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
I. Aesthetics. <i>Would the Project:</i>				
a. Have a substantial adverse effect on a scenic vista?	Pg. 18	No	No	No
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	Pg. 18	No	No	No
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Pg. 18	No	No	No
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Pgs. 19 to 22	No	No	No

Discussion

a,b. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project’s impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The 2022 IS/MND analyzed the potential for buildout of the project to result in impacts to scenic vistas and found that scenic visual resources, such as scenic vistas, do not occur within the vicinity of the plan area. In addition, according to the California Scenic Highway Mapping System, the Site is located approximately 8.5 miles east of the nearest State Scenic Highway, State Route (SR) 160.¹ The Site is not visible from SR 160.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Considering that new scenic vistas or State scenic highways have not been identified within or in immediate proximity to the plan area since the City’s approval of the 2022

¹ California Department of Transportation. *California State Scenic Highway System Map*. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed November 2024.

IS/MND, the currently proposed Project would not result in an impact beyond what was determined in the 2022 IS/MND.

Based on the above information, the currently proposed Project would not result in new significant impacts or substantially more severe impacts related to scenic vistas or scenic resources within a State scenic highway beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- c. The Site is located in an urbanized area and is zoned HI. The 2022 IS/MND analyzed the potential for buildout of the project to conflict with applicable zoning and other regulations governing scenic quality and concluded that a less-than-significant impact would occur. The 2022 IS/MND determined that the project would be consistent with the zoning designation for the Site, and would essentially serve as an extension of the existing industrial and commercial development in the Project vicinity. The project was anticipated to include landscaping elements to screen public views of the Site and be visually compatible with the existing commercial and industrial development to the north and south of the Site. Furthermore, pursuant to the City's General Plan, the site has been anticipated for development. As such, changes to the visual character and quality of the site have been anticipated by the City.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND and would include similar landscaping and design features. The currently proposed Project would require City approval of a Major Design Review Amendment pursuant to Section 23.16.080 of the City's Municipal Code to revise the site plan and elevations to have the docks front-facing along Waterman Road. The City's design review process is intended to ensure consistency with the Citywide Design Guidelines, encourage development in keeping with the desired character of the City, and to ensure physical, visual, and functional compatibility between uses.

Thus, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to substantial degradation of the existing visual character or quality of public views of the Site and the Site's surroundings beyond what were previously identified in 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- d. The 2022 IS/MND assessed the potential for the project to create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and determined that implementation of the project would develop the Site with warehouses, and, thus, would introduce new sources of light and glare where none currently exist. However, the Project applicant previously prepared a point-by-point photometric calculation listing the number, type, height, and level of illumination of all outdoor lighting fixtures in conjunction with the development permit application and prior to issuance of a building permit or site improvement plans. As demonstrated in the photometric plan, the project was anticipated to be in compliance with all applicable regulations included in Chapter 23.56, Lighting, of the City's Municipal Code. Thus, the 2022 IS/MND concluded that given the consistency of the project with surrounding development, compliance with the City's Design Guidelines and Municipal Code, and the added assurance of the design review process, implementation of the 2022 project would result in a less-than-significant impact with respect to creating a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. New sources of light and glare associated with the Project would include, but

not be limited to, interior light spilling through warehouse windows, exterior lighting, employee vehicle headlights, and light reflected off windows. However, pursuant to Elk Grove Municipal Code Section 23.56.030(B), exterior lighting installed as part of new nonresidential development is required to include shielding that reduces glare to prevent light from being visible within any residential dwelling unit. In addition, Municipal Code Section 23.56.030(B) includes standards measured in footcandles detailing the maximum illumination that can emanate from parking lots and pedestrian walkways, as well as the maximum amount of illumination that can trespass on abutting residential and agricultural property. As detailed therein, the maximum illumination from the respective sources of light are as follows: an average of four footcandles, an average of two footcandles, and 0.1-footcandle. Furthermore, the Project would be required to comply with the maximum height restrictions for freestanding and exterior light fixtures specified by Section 23.56.030(C) of the Municipal Code. Section 23.56.030(C) establishes the maximum height for freestanding outdoor light fixtures shall be thirty feet, subject to exceptions granted by the approving authority. Lastly, Municipal Code Section 23.56.030(E) requires that exterior lighting include automatic timing devices to ensure light is turned off between 10:00 PM and 6:00 AM, except as allowed by the exceptions established therein.

The currently proposed Project would be required to incorporate shielding and automatic timing devices, as required by Municipal Code Section 23.56.030. In addition, as part of demonstrating compliance with the applicable illumination standards detailed above, a Photometric Site Plan summarizing the anticipated horizontal illuminance of Building B was prepared for the currently proposed Project (see Figure 4). According to the Photometric Site Plan, the currently proposed Project would result in a horizontal illuminance generally consistent with the four-footcandle maximum average for parking areas and two-footcandle maximum average for pedestrian walkways within the Building B area. In addition, lighting installed as part of the Project would generally not exceed 0.1-footcandle at abutting property lines. With respect to Building A, the photometric plan prepared for the 2022 IS/MND would remain applicable to the currently proposed Project (see Figure 5). As such, the currently proposed Project would not result in new sources of substantial light or glare at the Site that would adversely affect day or nighttime views in the Project vicinity.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe impacts related to the creation of a new source of substantial light or glare which would adversely affect day or nighttime views in the area beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to aesthetics.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Figure 4
Building B Photometric Site Plan

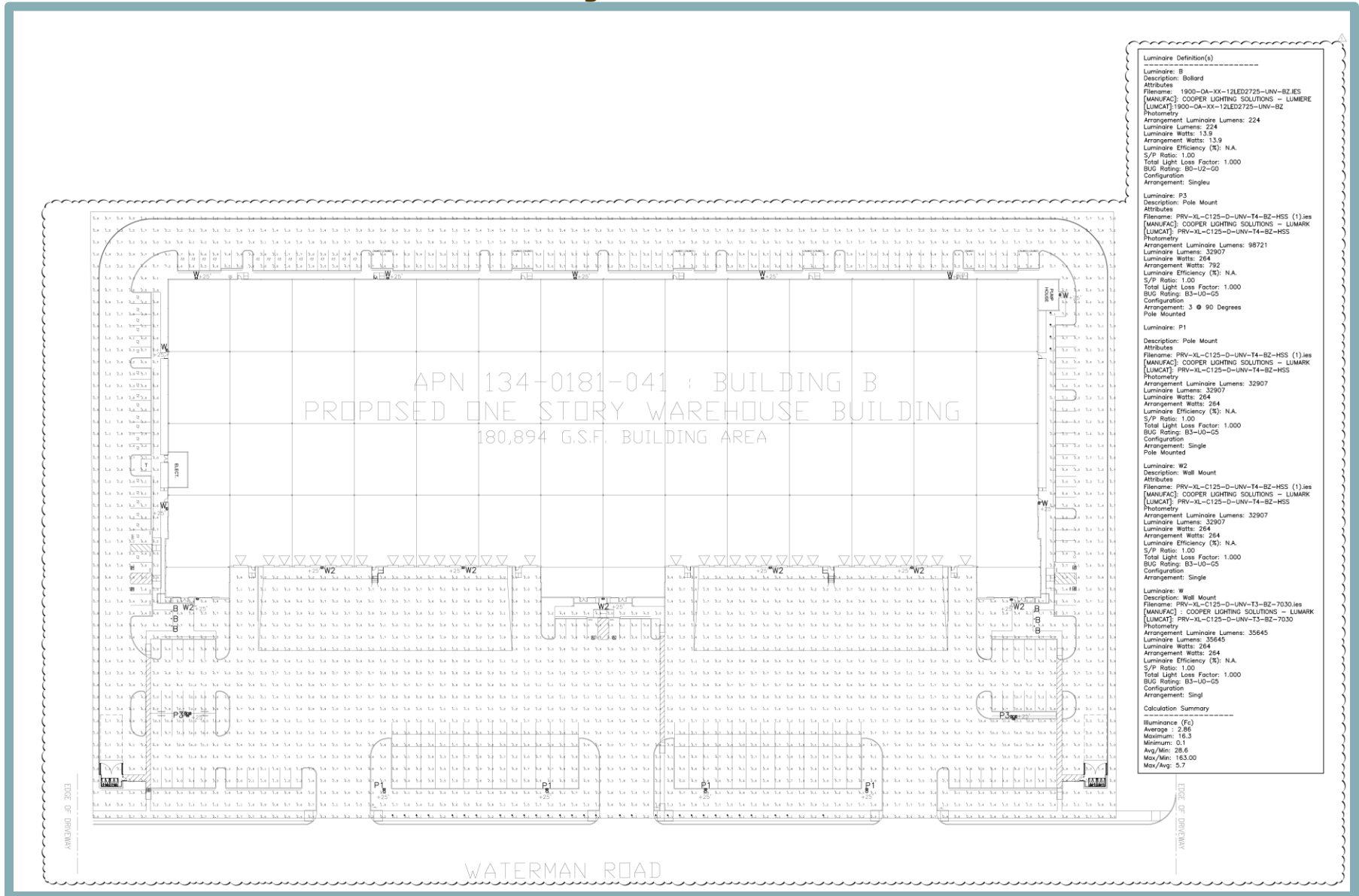
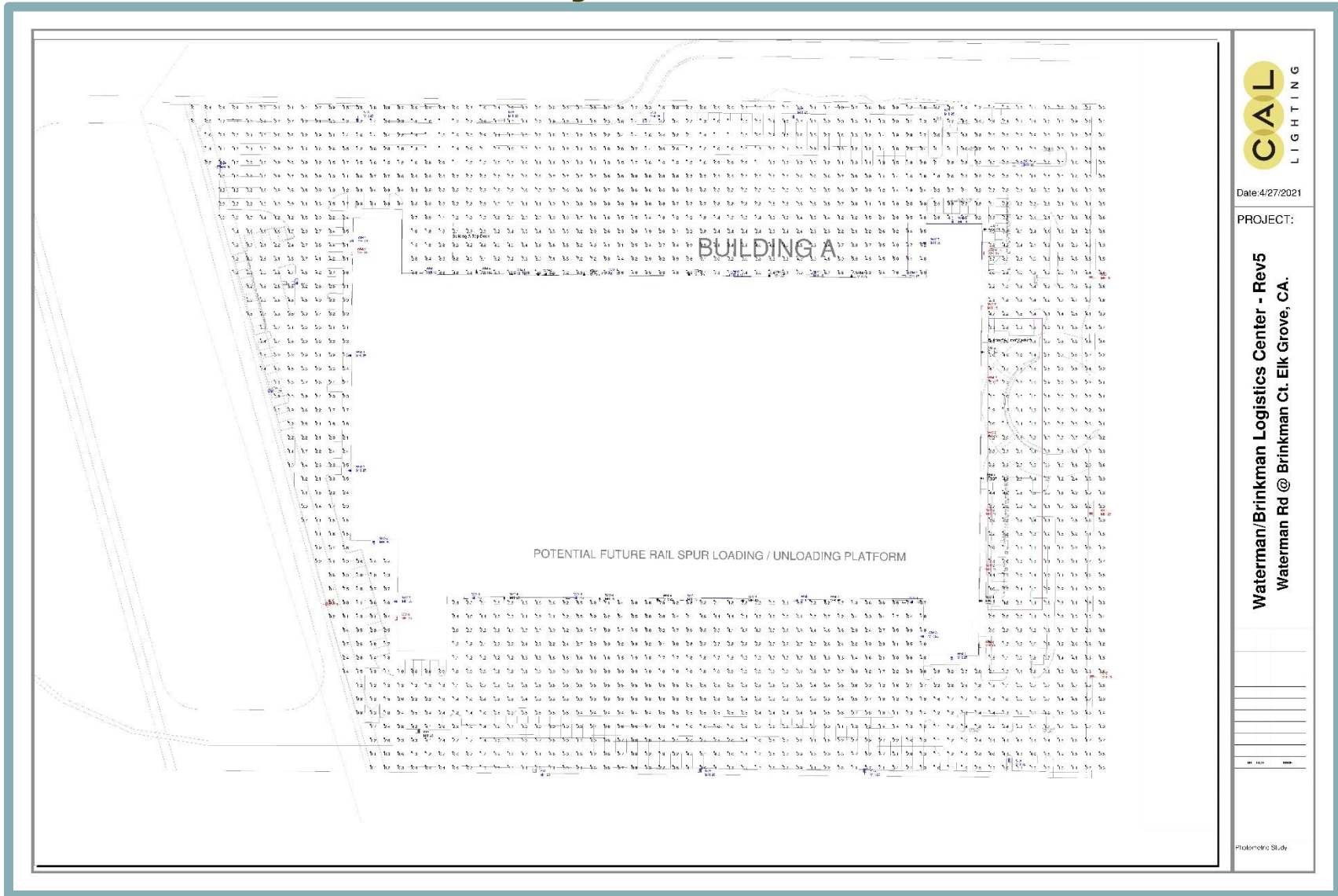


Figure 5
Building A Photometric Site Plan



Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
II. Agriculture and Forestry Resources.				
<i>Would the Project:</i>				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Pg. 23	No	No	No
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Pg. 23	No	No	No
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	Pgs. 23 and 24	No	No	No
d. Result in the loss of forest land or conversion of forest land to non-forest use?	Pg. 23 and 24	No	No	No
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Pg. 23	No	No	No

Discussion

a,e. The 2022 IS/MND evaluated the potential for the Project to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural uses, or involve other changes in the existing environment which could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use, and concluded that no impact would occur. The Site is currently vacant and undeveloped and consists primarily of ruderal grasses which are regularly disked. Currently, the Site is designated as “Farmland of Local Importance” and “Other Land” pursuant to the California

Department of Conservation FFMP.² While the General Plan EIR identified a significant and unavoidable impact related to cumulative loss of Important Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance), Farmland of Local Importance and Grazing Land are not considered “Important Farmland” under CEQA.³ The City’s General Plan does not require mitigation for conversion of Farmland of Local Importance or Grazing Land. Furthermore, the Site is not zoned or designated in the General Plan for agriculture uses.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. As such, the currently proposed Project would not result in an impact beyond what was determined in the 2022 IS/MND.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use beyond what was previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b. According to the 2022 IS/MND the Site is not under a Williamson Act contract and is not designated or zoned for agricultural uses, and the 2022 IS/MND concluded that no impact would occur. Since approval of the 2022 IS/MND the Site has not been placed under a Williamson Act contract or been zoned for agricultural uses.

Based on the above information, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to conflicts with existing zoning for agricultural use, or a Williamson Act contract beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- c,d. According to the 2022 IS/MND, the Project area is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). The 2022 IS/MND determined that no impact would occur. Since approval of the 2022 IS/MND the Site has not been zoned Timberland Production. Therefore, the currently proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production, or result in the loss of forest land or conversion of forest land to non-forest use.

Based on the above, the currently proposed Project would not result in new significant impacts related to conflicts with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned; or the loss of forest land or conversion of forest land to non-forest use beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

² California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed November 2024.

³ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.2-8]. February 2019.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to agriculture and forestry resources.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
III. Air Quality.				
<i>Would the Project:</i>				
a. Conflict with or obstruct implementation of the applicable air quality plan?	Pgs. 25 to 29	No	No	No
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Pgs. 25 to 29	No	No	No
c. Expose sensitive receptors to substantial pollutant concentrations?	Pgs. 29 to 36	No	No	Yes
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Pgs. 36 and 37	No	No	No

Discussion

- a. The Project area is located within the boundaries of the Sacramento Valley Air Basin (SVAB) and under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Federal and State ambient air quality standards (AAQS) have been established for six common air pollutants, known as criteria pollutants, due to the potential for pollutants to be detrimental to human health and the environment. The criteria pollutants include particulate matter (PM), ground-level ozone, carbon monoxide (CO), sulfur oxides, nitrogen oxides (NO_x), and lead. At the federal level, Sacramento County is designated as severe nonattainment for the 8-hour ozone AAQS, nonattainment for the 24-hour PM_{2.5} AAQS, and attainment or unclassified for all other criteria pollutant AAQS. At the State level, the area is designated as a serious nonattainment area for the 1-hour ozone AAQS, nonattainment for the 8-hour ozone AAQS, nonattainment for the PM₁₀ and PM_{2.5} AAQS, and attainment or unclassified for all other State AAQS.

Due to the nonattainment designations, SMAQMD, along with the other air districts in the SVAB region, is required to develop plans to attain the federal and State AAQS for ozone and particulate matter. The attainment plans currently in effect for the SVAB are the 2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2013 Ozone Attainment Plan), PM_{2.5} Implementation/Maintenance Plan and Re-designation Request for Sacramento PM_{2.5} Nonattainment Area (PM_{2.5} Implementation/Maintenance Plan), and the 1991 Air Quality Attainment Plan (AQAP), including triennial reports. The air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control measures have worked, and show how air pollution would be reduced. In addition, the plans include the estimated future levels of pollution to ensure that the area would meet air quality goals.

Nearly all development projects in the Sacramento region have the potential to generate air pollutants that may increase the difficulty of attaining federal and State AAQS. Therefore, evaluation of air quality impacts is required. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants that the area is designated nonattainment, SMAQMD has developed the Guide to Air Quality Assessment in Sacramento County (SMAQMD Guide), which includes recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors, as the area is under nonattainment for ozone. The SMAQMD’s recommended thresholds of significance for the ozone precursors reactive organic compounds (ROG) and NO_x, which are expressed in pounds per day (lbs/day) and tons per year (tons/yr), are presented in Table 1. As shown in the table, SMAQMD has construction and operational thresholds of significance for PM₁₀ and PM_{2.5} expressed in both lbs/day and tons/yr. The construction and operational thresholds for PM₁₀ and PM_{2.5} only apply to those projects that have implemented all applicable Best Available Control Technologies (BACTs) and Best Management Practices (BMPs).

Table 1 SMAQMD Thresholds of Significance		
Pollutant	Construction Thresholds	Operational Thresholds
ROG	N/A	65 lbs/day
NO _x	85 lbs/day	65 lbs/day
PM ₁₀	80 lbs/day 14.6 tons/yr	80 lbs/day 14.6 tons/yr
PM _{2.5}	82 lbs/day 15 tons/yr	82 lbs/day 15 tons/yr

Source: SMAQMD, CEQA Guidelines, April 2020.

The following is a summary of the analyses and conclusions contained in the 2022 IS/MND related to consistency with the SMAQMD thresholds of significance during construction and operational phases of the project, and an analysis of the currently proposed Project’s potential to result in emissions above the SMAQMD thresholds of significance.

Construction Emissions

The 2022 IS/MND analyzed the potential for development facilitated by buildout of the project to conflict with or obstruct implementation of an applicable air quality plan during construction by calculating an estimate of emissions associated with buildout of the project and comparing such emissions to the thresholds of significance adopted by SMAQMD. The 2022 IS/MND determined that the project’s construction emissions would be below the applicable SMAQMD thresholds of significance for NO_x, PM₁₀, and PM_{2.5}. Accordingly, construction of the project was not determined to violate an air quality standard or contribute to an existing or projected air quality violation, and the 2022 IS/MND concluded that a less-than-significant impact would occur associated with construction.

As discussed above, the currently proposed Project would include an additional 15,994 sf of building space associated with Building B as compared to the 2022 project. However, the currently proposed Project would result in the same area of disturbance as compared to the 2022 project. During construction activities, the grading phase is typically the most intensive phase of construction, and would result in the highest amount of emissions associated with the use of off-road construction equipment. Thus, given that the intensity and duration of project construction would remain similar as compared to what was previously analyzed for the Site, and given that the 2022 project was determined to result in a less-than-significant impact related to construction emissions, construction of the currently proposed Project would not be anticipated to exceed the

SMAQMD's standards of significance during construction. Consequently, similar to the 2022 project, the Project would not be expected to violate an air quality standard or contribute to an existing or projected air quality violation.

In addition, similar to the 2022 project, the currently proposed Project is required to comply with all SMAQMD rules and regulations for construction, which would be noted on City-approved construction plans. The applicable rules and regulations would include, but would not be limited to, the following:

- Rule 403 related to Fugitive Dust;
- Rule 404 Related to Particulate Matter;
- Rule 407 related to Open Burning;
- Rule 442 related to Architectural Coatings;
- Rule 453 related to Cutback and Emulsified Asphalt Paving Materials; and
- Rule 460 related to Adhesives and Sealants.

The currently proposed Project would also be required to implement all feasible SMAQMD BACTs and BMPs related to dust control. The control of fugitive dust during construction is required by SMAQMD Rule 403, and enforced by SMAQMD staff. The BMPs for dust control include the following:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads;
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered;
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited;
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph);
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used;
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [CCR, Title 13, Sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site;
- Provide current certificate(s) of compliance for the California Air Resources Board's (CARB's) In-Use Off-Road Diesel-Fueled Fleets Regulation [CCR, Title 13, Sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html.; and
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Compliance with the foregoing measures is required pursuant to Rule 403, and Project construction is assumed to include compliance with the foregoing measures.

Operational Emissions

The 2022 IS/MND evaluated operational emissions of ROG, NO_x, and PM that would be generated by the project from both mobile and stationary sources. Day-to-day activities, such as employee commute vehicle trips and truck trips to and from the Site, were determined make up

the majority of the mobile emissions. Emissions were also determined to occur from area sources, such as landscape maintenance equipment exhaust.

The 2022 IS/MND concluded that the project would not result in operational emissions in excess of the applicable SMAQMD thresholds, and a less-than-significant impact would occur. It should be noted that the project was not anticipated to involve installation or operation of any pieces of equipment that would require implementation of SMAQMD’s BACTs; therefore, the project was not determined to be subject to SMAQMD’s mass emissions thresholds for PM₁₀ and PM_{2.5}.

The currently proposed Project’s operational emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.29 software – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including trip generation rates, vehicle mix, trip length, average speed, compliance with the California Building Standards Code (CBSC), etc. Where Project-specific data was available, such data was input into the model (e.g., inherent site or Project design features, compliance with applicable regulations, etc.). Accordingly, the Project’s modeling assumed the following:

- Operations would begin in 2026;
- Approximately eight forklifts would be used daily during operations; and
- The project would comply with all applicable regulations, including the 2022 CBSC, the 2022 CALGreen Code, and the Model Water Efficiency Landscape Ordinance.

All CalEEMod results are included in Appendix A to this IS/MND.

Table 2 presents the maximum unmitigated operational emissions associated with development of the Site with the Site’s approved 2022 IS/MND conditions, in comparison to the maximum unmitigated operational emissions associated with the currently proposed Project.

Table 2						
Maximum Unmitigated Operational Emissions: 2022 IS/MND Approved Conditions Compared to the Currently Proposed Project						
Scenario	ROG	NO_x	PM₁₀		PM_{2.5}	
	lbs/day	lbs/day	lbs/day	tons/yr	lbs/day	tons/yr
Approved Conditions	12.40	12.29	4.59	0.78	1.56	0.25
Currently Proposed Project	17.6	9.64	6.38	1.12	1.87	0.32
<i>Net Difference</i>	<i>+5.2</i>	<i>-2.65</i>	<i>+1.79</i>	<i>+0.34</i>	<i>+0.31</i>	<i>+0.07</i>
Adopted SMAQMD Threshold	65	65	80	14.6	82	15
Exceed?	NO	NO	NO		NO	

Source: CalEEMod, November 2024.

As shown in the table, a net increase in operational ROG, PM₁₀, and PM_{2.5} emissions associated with currently proposed Project would occur relative to the Site’s approved 2022 IS/MND conditions. However, because the net increase in emissions would not cause an exceedance of any of SMAQMD’s adopted thresholds, the net increase would not be considered substantial. Furthermore, the currently proposed Project would result in a net decrease of NO_x emissions, relative to buildout of the Site under the approved 2022 IS/MND conditions. It should also be noted that default trip generation rates were applied in the modeling. However, because the

currently proposed Project would decrease the number of dock positions, roll-up doors, and parking stalls for Building B, mobile emissions associated with the currently proposed Project would be expected to decrease as compared to the conditions evaluated in the 2022 IS/MND. Overall, operational emissions associated with the currently proposed Project would be below the applicable thresholds of significance for all criteria pollutants. Accordingly, operational emissions associated with the currently proposed Project would result in a less-than-significant impact. Therefore, the currently proposed Project would not result in any new or more severe significant impacts related to operational criteria pollutant emissions from what was previously analyzed in the 2022 IS/MND.

Conclusion

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts from what was previously analyzed in the 2022 IS/MND related to implementation of an applicable air quality plan. Thus, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b. A cumulative impact analysis considers a project over time in conjunction with other past, present, and reasonably foreseeable future projects whose impacts might compound those of the project being assessed. Due to the dispersive nature and regional sourcing of air pollutants, air pollution is already largely a cumulative impact. The non-attainment status of regional pollutants, including ozone and PM, is a result of past and present development, and, thus, cumulative impacts related to the foregoing pollutants could be considered cumulatively significant.

Adopted SMAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated non-attainment, consistent with applicable air quality plans. As future attainment of AAQS is a function of successful implementation of SMAQMD's planning efforts, according to the SMAQMD Guide, by exceeding the SMAQMD's project-level thresholds for construction or operational emissions, a project could contribute to the region's non-attainment status for ozone and PM emissions and could be considered to conflict with or obstruct implementation of the SMAQMD's air quality planning efforts.

The 2022 IS/MND evaluated the potential for development facilitated by buildout of the project to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment and concluded that because the project would result in construction and operational emissions below all applicable SMAQMD thresholds of significance, the project was not determined to result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment. Thus, impacts were considered less than significant.

As discussed above, the currently proposed Project would result in construction and operational emissions below all applicable SMAQMD thresholds of significance. Therefore, the currently proposed Project would not be considered to result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is non-attainment. Overall, as confirmed by the CalEEMod results for the currently proposed Project, the Project's increases in emissions, relative to the 2022 IS/MND, would result in a less-than-significant impact.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts from what was previously analyzed in the 2022 IS/MND. Thus, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be the single-family residence located approximately 200 feet east of Lot B, across Waterman Road.

The major pollutant concentrations of concern are toxic air contaminant (TAC) emissions, which are addressed in further detail below.

TAC Emissions

Another category of environmental concern is TACs. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. The CARB's Air Quality and Land Use Handbook: A Community Health Perspective (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, rail yards, and gas-dispensing facilities (GDFs).

The 2022 IS/MND evaluated potential impacts related to TACs through preparation of both a construction related health risk assessment (HRA) and an operational HRA. As detailed therein, health risks associated with the project were estimated using the American Meteorological Society/Environmental Protection Agency (AMS/EPA) Regulatory Model (AERMOD). The associated cancer risk and non-cancer hazard index were calculated using the CARB's Hotspot Analysis Reporting Program Version 2 (HARP 2) Risk Assessment Standalone Tool (RAST), which calculates the cancer and non-cancer health impacts using the risk assessment guidelines of the 2015 Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments.⁴ The modeling was performed in accordance with the U.S. Environmental Protection Agency's (USEPA's) User's Guide for the AMS/EPA Regulatory Model – AERMOD⁵ and the 2015 OEHHA Guidance Manual. Further detail regarding such health risks, as compared to health risks associated with the currently proposed Project are discussed below.

Construction

As presented in Table 4 of the 2022 IS/MND, construction of the 2022 project was determined to result in an increased cancer risk of 3.66 chances per million persons, which is below the SMAQMD significance threshold of 10 chances per million persons. In addition, acute hazards associated with the 2022 project were determined to be 0.00 and chronic hazards were determined to be 0.003; SMAQMD has established a significance threshold of 1.0 for both chronic and acute hazards. Thus, as concluded in the 2022 IS/MND, the previous project would not result

⁴ Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.

⁵ U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.

in cancer risk, acute hazards, or chronic hazards in excess of the SMAQMD’s standards of significance during construction.

As discussed above, the currently proposed Project would include an additional 15,994 sf of building space associated with Building B as compared to the 2022 project. However, the currently proposed Project would result in the same area of disturbance as compared to the 2022 project. During construction activities, the grading phase is typically the most intensive phase of construction, and would result in the highest amount of diesel particulate matter (DPM) associated with the use of off-road construction equipment. Thus, given that the intensity and duration of project construction would remain similar as compared to what was previously analyzed for the Site, and given that the 2022 project was determined to result in a cancer risk of 3.66 chances per million persons, which is below the SMAQMD significance threshold of 10 chances per million persons, the currently proposed Project would not be anticipated to result in any significant cancer risk, acute hazard, or chronic hazard risk increases such that risks would exceed the SMAQMD’s standards of significance during construction. Consequently, similar to the 2022 project, the Project would not be expected to expose nearby sensitive receptors to substantial pollutant concentrations during construction activities.

Operations

With regard to operational emissions, as discussed in the 2022 IS/MND, TAC emissions occurring during operations of the project were determined to originate primarily from heavy-duty diesel vehicles traveling to and from the Site, and idling at the loading docks within the Site. As presented in Table 5 of the 2022 IS/MND, operation of the 2022 project was determined to result in a cancer risk of 3.17 chances per million persons, which is below the SMAQMD significance threshold of 10 chances per million persons. In addition, both acute and chronic hazards associated with the 2022 project were determined to be 0.00; SMAQMD has established a significance threshold of 1.0 for both chronic and acute hazards. Thus, as concluded in the 2022 IS/MND, the previous project would not result in cancer risk, acute hazards, or chronic hazards in excess of the SMAQMD’s standards of significance during operations.

Given the similarity of the 2022 project and the currently proposed Project, the number of truck trips and employee trips generated by the currently proposed Project are not anticipated to change significantly as compared to the 2022 Project. The currently proposed Project would reduce the number of dock positions for Building B from 35 to 30, and, therefore, the currently proposed Project would be anticipated to result in less truck trips as compared to the previous Project. However, because the site plan was revised such that the proposed loading docks of Building B would be closer to the adjacent single-family residences to the east, an updated HRA was prepared. The results of the updated HRA are presented in Table 3.

Table 3			
Maximum Unmitigated Cancer Risk and Hazard Index Associated with Project Operational DPM			
	Cancer Risk (per million persons)	Acute Hazard Index	Chronic Hazard Index
2022 Project	3.17	0.00	0.00
Currently Proposed Project	3.84	0.00	0.00
Difference	+0.67	0.00	0.00
<i>Thresholds of Significance</i>	<i>10</i>	<i>1.0</i>	<i>1.0</i>
Exceed Thresholds?	NO	NO	NO
<i>Sources: AERMOD, and HARP 2 RAST, November 2024 (see Appendix A).</i>			

As shown in Table 3, the currently proposed Project would result in a slight cancer risk increase as compared to the 2022 project. However, the net increase, as well as the overall cancer risk associated with the currently proposed Project would remain below the SMAQMD significance threshold of 10 chances per million persons, as demonstrated in Table 3. In addition, acute and chronic hazard risks would remain the same as compared to the currently proposed Project. Consequently, similar to the 2022 project, the Project would not be expected to expose nearby sensitive receptors to substantial pollutant concentrations during operations.

As discussed above, since adoption of the 2022 IS/MND, the City of Elk Grove has approved the Grant Line Road Construction Aggregate Production and Recycling Facility Project, which has the potential to expose sensitive receptors to TACs. According to the Draft EIR for the Grant Line Road Construction Aggregate Production and Recycling Facility Project, operation of the project would result in a maximum risk exposure of 8.5 chances per million persons for the maximally exposed individual for nearby residences to the west.⁶ However, the currently proposed Project would revise the site plan such that the proposed loading docks of Building B would be closer to the adjacent single-family residences to the east, rather than the single-family residences to the west. Therefore, the reconfiguration of Building B would reduce the currently proposed Project's contribution to western receptors in combination with the Grant Line Road Construction Aggregate Production and Recycling Facility Project. The change in circumstances since adoption of the 2022 IS/MND associated with the approval of the Grant Line Road Construction Aggregate Production and Recycling Facility Project adjacent to the Site would not result in new or more severe impacts related to TACs.

Conclusion

Based on the above, the currently proposed Project would not result in a new significant impact or substantially more severe impact related to TACs from what was previously analyzed in the 2022 IS/MND.

Criteria Pollutants

Health effects from criteria pollutants are generally experienced on a cumulative air basin-wide level. Thus, the potential for the currently proposed Project to result in increased exposure of sensitive receptors to substantial criteria pollutant concentrations in comparison to the 2022 IS/MND is discussed under question 'b' above. As concluded therein, the currently proposed Project would result in a less-than-significant impact. As such, potential health impacts would be less than significant.

Conclusion

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts to sensitive receptors beyond what was identified in the 2022 IS/MND. Thus, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- d. Pollutants of principal concern include emissions leading to odors, visible emission (including dust), or emissions considered to constitute air pollutants. Air pollutants have been discussed above. Therefore, the following discussion focuses on emissions of odors and visible emissions. The 2022 IS/MND concluded that a less-than-significant impact related to odors and dust would occur.

⁶ City of Elk Grove. *Draft Environmental Impact Report for the Grant Line Construction Aggregate Production and Recycling Facility Project State Clearinghouse Number 2022010079*. January 2023.

Odors

While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments and air districts. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, it is difficult to quantitatively determine the presence of a significant odor impact. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The Project would not introduce any such land uses.

As discussed above, since adoption of the 2022 IS/MND, the City of Elk Grove has approved the Grant Line Road Construction Aggregate Production and Recycling Facility Project, which has the potential to result in impacts related to offensive odors. According to the Draft EIR for the project, the project would incorporate features considered to be BACT by SMAQMD related to the hot-mix asphalt facility. Each asphalt tank would use a vent condenser to capture emissions generated when air is displaced as the tank is filled. Additionally, because the vent condensers are integral to the tanks, the vent condensers would also capture emissions when the tanks experience any standing losses. Emissions released during asphalt plant silo filling and loadout also would be controlled by a Blue Smoke Control device. The blend of particulate and vapors would be controlled through the silo filling and loadout duct work, which would vent into the Blue Smoke Control device. The Draft EIR for the Grant Line Road Construction Aggregate Production and Recycling Facility Project concluded that implementation of project design features would control potential release of odors into the nearby surroundings. As such, odors associated with the currently proposed Project in combination with the Grant Line Road Construction Aggregate Production and Recycling Facility Project would not result in cumulative impacts, and, therefore, the change in circumstances since adoption of the 2022 IS/MND associated with the approval of the hot-mix asphalt facility adjacent to the Site would not result in new or more severe odor impacts.

Construction activities often include diesel fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction activities would be temporary, and operation of construction equipment adjacent to existing residential uses would be restricted to the hours of 7:00 AM to 7:00 PM every day, unless unforeseen conditions occur, per Section 6.32.100 of the City's Municipal Code. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Accordingly, substantial objectionable odors would not be expected to occur during construction activities.

Dust

As noted previously, construction of the currently proposed Project is required to comply with all applicable SMAQMD rules and regulations, including, but not limited to, Rule 403 (Fugitive Dust) and Rule 404 (Particulate Matter). Additionally, all projects within Sacramento County are required to implement the SMAQMD's Basic Construction Emission Control Practices (BCECP). Compliance with SMAQMD rules and regulations and BCECP would help to ensure that dust is minimized during Project construction. Furthermore, PM emissions would not increase as part of the currently proposed Project during construction, relative to construction of the Site under the 2022 IS/MND approved conditions. Following Project construction, vehicles operating within the Site would be limited to paved areas of the Site, which would not have the potential to create substantial dust emissions. Thus, Project operations would not include sources of dust that could adversely affect a substantial number of people.

Conclusion

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to other emissions such as those leading to dust or odors that would affect a substantial number of people beyond what was identified in the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to air quality.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

*Waterman Brinkman Logistics Center Amendment
Administrative Addendum to the Waterman Brinkman Logistics Center Project*

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
IV. Biological Resources.				
<i>Would the Project:</i>				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Pgs. 38 to 50	No	No	No
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	Pgs. 50 to 52	No	No	No
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Pgs. 50 to 52	No	No	No
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Pg. 53	No	No	No
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Pgs. 53 and 54	No	No	No
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Pg. 54	No	No	No

Discussion

- a. A development project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS), if the project components result in the “take” of such species. Pursuant to the federal Endangered Species Act, “take” is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct. In addition, raptors (birds of prey), migratory birds, and other avian species are protected under the Migratory Bird Treaty Act of 1918 (MBTA) and California Fish and Game Code (CFGC) Section 3503.5. Furthermore, plant species considered to be rare, threatened, or endangered in California by the California Native Plant Society (CNPS) and CDFW (California Rare Plant Rank [CRPR] 1 and 2) are provided special status under CEQA.

The 2022 IS/MND discussion of biological resources is based on the Biological Resources Assessments prepared for the Project by HELIX Environmental Planning^{7,8} On November 6, 2019, a field survey of Lot A was conducted to assess the potential for special-status species and sensitive habitats. On October 23, 2019, a field survey of Lot B was conducted to assess the potential for special-status species and sensitive habitats. In addition, the California Natural Diversity Data Base (CNDDB), CNPS Inventory of Rare and Endangered Plants, and historic aerial imagery were reviewed.

According to the 2022 IS/MND, Lot A is undeveloped but highly-disturbed from ongoing human activities, such as regular discing. Lot A contains several biological community types, primarily Barren. In addition, Lot A includes ruderal/disturbed habitat, non-native annual grassland, valley oak woodland, and a depressional seasonal wetland. Lot B is regularly disced creating a highly-disturbed environment that supports several non-native and invasive plant species. One biological community, defined as Ruderal/Disturbed, occurs within the Lot B Study Area. On-site conditions have not changed since the adoption of the 2022 IS/MND.

The following is a summary of the analyses and conclusions contained in the 2022 IS/MND related to special-status plant and wildlife species and an analysis of the currently proposed Project’s potential to result in substantial adverse effects to special-status species that have potential to occur in the Project vicinity.

Potential Impacts to Special-Status Plants

As discussed in the 2022 IS/MND, based on field observations, site conditions, habitat availability, and literature review, 12 special-status plant species have the potential to occur within the Lot A Study Area. The species are as follows: Sanford’s arrowhead, Bolander’s water-hemlock, bristly sedge, hoary navarretia, Mason’s lilaepsis, marsh skullcap, Parry’s tarplant, Peruvian dodder, saline clover, sideflowering skullcap, watershield, and woolly rose-mallow. Thus, due to the presence of suitable habitat within the Lot A Study Area and documented occurrences within close proximity to the Site, special-status plant species have the potential for occurrence within Lot A. As such, the 2022 IS/MND concluded that ground-disturbing activities associated with construction of the project on Lot A could adversely affect special-status plant habitat, and a potentially significant impact could occur. Through incorporation of Mitigation Measure IV-1, the 2022 IS/MND concluded a less-than-significant impact would occur.

⁷ HELIX Environmental Planning. *Waterman Road (20.5-Acre) Biological Resources Assessment*. April 2021.

⁸ HELIX Environmental Planning. *Waterman Road (10-Acre) Biological Resources Assessment*. February 2020.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND, and the currently proposed Project would not result in changes to the Lot A disturbance area. Because on-site conditions have not changed since adoption of the 2022 IS/MND, the Site contains suitable habitat for special-status plant species, and construction of the Project on Lot A could adversely affect special-status plant habitat. Thus, the currently proposed Project would be subject to Mitigation Measure IV-1. With incorporation of Mitigation Measure IV-1, the currently proposed Project would result in a less-than-significant impact.

Potential Impacts to Special-Status Wildlife Species

As previously discussed, the 2022 IS/MND incorporated information from literature review and field surveys to identify the biological resources with potential to occur in the project area. The Biological Resources Assessments concluded that the following special-status wildlife species have the potential to occur on the Site: Swainson's hawk, burrowing owl, and nesting migratory birds and raptors, including the white-tailed kite, tricolored blackbird, and Cooper's hawk. In addition, due to the habitat types present on Lot A, the western pond turtle and giant garter snake have high potential to occur on Lot A. The aforementioned wildlife species that were individually evaluated as part of the 2022 IS/MND are discussed further below.

Swainson's Hawk

The 2022 IS/MND evaluated the potential for the project to result in impacts to Swainson's hawk and determined that a significant impact could occur. More specifically, the 2022 IS/MND found that the on-site open grasslands, isolated trees, and a nearby riparian area provide suitable Swainson's hawk foraging and nesting habitat. In addition, the CNDDDB search returned 56 records of Swainson's hawk occurrences within five miles of the Lot A Study Area and 54 occurrences of the species within five miles of the Lot B Study Area. The nearest documented occurrence is located approximately 100 feet south of the Lot B Study Area. To prevent potential impacts, Mitigation Measure IV-2(a) requires a preconstruction nesting habitat for Swainson's hawk and applicable avoidance measures, and Mitigation Measure IV-2(b) requires acquisition of a conservation easement(s) or other instrument suitable to preserve foraging habitat for the Swainson's hawk in accordance with either Section 16.130.040 or 16.130.110 of the Elk Grove Municipal Code. With incorporation of Mitigation Measures IV-2(a) and IV-2(b), the 2022 IS/MND found that a less-than-significant impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Thus, the on-site open grasslands, isolated trees, and a nearby riparian area would provide suitable nesting and foraging habitat for the species. If Swainson's hawks were nesting in trees removed during construction, incidental mortality of individuals of the species could occur, and the currently proposed Project could have a substantial adverse effect on Swainson's hawk foraging habitat. As such, the currently proposed Project would be subject to Mitigation Measures IV-2(a) and IV-2(b), which would ensure that the potential impact is reduced to a less-than-significant level.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to Swainson's hawk beyond what were previously identified in the 2022 IS/MND.

Burrowing Owl

The 2022 IS/MND evaluated the potential for the project to result in impacts to burrowing owl and determined that a significant impact could occur. The CNDDDB search returned eight occurrences for the species within five miles of the Lot A Study Area and seven occurrences for the species

within five miles of the Lot B Study Area. In addition, existing burrows within the Lot A Study Area provide potential nesting habitat, and the ground squirrels on-site could provide prey for the species. The 2022 IS/MND concluded that because several documented occurrences for the species exist within the vicinity of the Site, and because the Site provides suitable nesting and foraging habitat, the burrowing owl has the potential to occur within the Site. To prevent potential impacts, Mitigation Measures IV-3(a) and IV-3(b) require a preconstruction nesting habitat for burrowing owl and applicable avoidance measures. With incorporation of Mitigation Measures IV-3(a) and IV-3(b), the 2022 IS/MND found that a less-than-significant impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Thus, the Site provides suitable nesting and foraging habitat. If the on-site burrows were occupied during construction, incidental mortality of individuals of the species could occur. As such, the currently proposed Project would be subject to Mitigation Measures IV-3(a) and IV-3(b), which would ensure that the potential impact is reduced to a less-than-significant level. However, as noted above, the protection status of burrowing owl has changed since adoption of the 2022 IS/MND. While the species was previously designated as a CDFW Species of Special Concern, the species is currently designated as a candidate species for listing under the CESA, which temporarily affords the species protections, such as prohibitions against “take” without permit authorization while CDFW conducts a review to confirm whether listing is warranted. As such, Mitigation Measures IV-3(a) and IV-3(b) have been modified pursuant to the updated protection status of burrowing owl. Nonetheless, while burrowing owl was not designated as a candidate species for listing under the CESA at the time of preparation of the 2022 IS/MND, the revised mitigation measures would allow compliance with the requirements for listed species.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to burrowing owl beyond what were previously identified in the 2022 IS/MND.

Other Nesting Birds and Raptors

The 2022 IS/MND evaluated the potential for buildout of the plan area to result in impacts to other nesting birds and raptors protected under the MBTA and CFGC, and determined that the potential exists for migratory birds and raptors protected under the MBTA to nest within the trees and bare ground on the Site. Thus, without mitigation, a significant impact could occur. To address the potential impact, the 2022 IS/MND requires Mitigation Measure IV-4(a), which necessitates preconstruction surveys at applicable times for nesting raptors and birds. In addition, Mitigation Measure IV-4(b) contains further provisions for active nests during construction activities. With implementation of Mitigation Measures IV-4(a) and IV-4(b), the 2022 IS/MND concluded that a less-than-significant impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. The Site is composed of undeveloped land that could offer potential foraging habitat for Swainson’s hawk, as well as other nesting raptors. Furthermore, trees that could provide potential nesting habitat for species protected under the MBTA and CFGC are located on-site. As such, the currently proposed Project would be subject to Mitigation Measures IV-4(a) and IV-4(b), which would ensure that the potential impact is reduced to a less-than-significant level.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to nesting birds and raptors protected under the MBTA and CFGC beyond what were previously identified in the 2022 IS/MND.

Western Pond Turtle

The 2022 IS/MND evaluated the potential for buildout of the plan area to result in impacts to western pond turtle, and determined that a significant impact could occur. The CNDDDB search returned two documented occurrences for the species within five miles of the Study Area. Elk Grove Creek provides suitable aquatic habitat, and the non-native annual grassland adjacent to Elk Grove Creek provides suitable upland and overwintering habitat for the species. Due to the presence of suitable aquatic and upland/overwintering habitat, and the documented occurrences for the species within the vicinity of the Lot A Study Area, the western pond turtle has the potential to occur within Lot A. To address the potential impact, the 2022 IS/MND requires Mitigation Measure IV-5, which requires a preconstruction survey and avoidance measures. With implementation of Mitigation Measure IV-5, the 2022 IS/MND concluded that a less-than-significant impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Thus, the western pond turtle has the potential to occur within Lot A. The currently proposed Project would not include changes to the Lot A disturbance area. Nonetheless, the currently proposed Project would be subject to Mitigation Measure IV-5, which would ensure that the potential impact is reduced to a less-than-significant level.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to western pond turtle beyond what were previously identified in the 2022 IS/MND.

Giant Garter Snake

The 2022 IS/MND evaluated the potential for buildout of the plan area to result in impacts to giant garter snake, and determined that a significant impact could occur. The CNDDDB search returned six documented occurrences for the species within five miles of the Study Area. Elk Grove Creek provides suitable aquatic habitat, and the underground burrows within the Lot A Study Area provide suitable upland/overwintering habitat for the species. Because several documented occurrences for the species exist within the vicinity of the Lot A Study Area, and the Lot A Study Area provides suitable upland habitat, and suitable aquatic habitat exists immediately adjacent to Lot A, the species has the potential to occur within Lot A. To address the potential impact, the 2022 IS/MND requires Mitigation Measures IV-6(a) and IV-6(b), which require a preconstruction survey and avoidance measures, as well as worker awareness training for construction personnel. With implementation of Mitigation Measures IV-6(a) and IV-6(b), the 2022 IS/MND concluded that a less-than-significant impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Thus, the giant garter snake has the potential to occur within Lot A. The currently proposed Project would not include changes to the Lot A disturbance area. Nonetheless, the currently proposed Project would be subject to Mitigation Measure IV-6(a) and IV-6(b), which would ensure that the potential impact is reduced to a less-than-significant level.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to giant garter snake beyond what were previously identified in the 2022 IS/MND.

Conclusion

Based on the above information, through incorporation of applicable mitigation measures set forth by the 2022 IS/MND, the currently proposed Project would not result in new significant impacts

or substantially more severe significant impacts related to any plant or wildlife species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b,c. Based on the Aquatic Resources Delineations prepared for the 2022 project by HELIX Environmental Planning,^{9,10} the 2022 IS/MND determined that aquatic resources, protected wetlands, riparian habitat, and otherwise sensitive communities do not exist on Lot B. In addition, potential CDFW jurisdictional features are not present on Lot A.

However, a 0.35-acre seasonal wetland was identified in the northern portion of Lot A. The seasonal wetland is considered a water of the U.S. and water of the State subject to U.S. Army Corps of Engineers (USACE) and Central Valley Regional Water Quality Control Board (CVRWQCB) jurisdiction under Section 404 and 401 of the Clean Water Act. In addition, an approximately 2.05-acre constructed, unlined earthen basin is located in the northwest portion of Lot A, adjacent to Elk Grove Creek. The basin meets all three wetland criteria to qualify as a wetland with hydric soils and wetland hydrology present. The constructed basin is not considered jurisdictional under Section 404 or 401 of the Clean Water Act, as water-filled depressions created in dry land incidental to mining or construction activity, including pits, excavated for obtaining fill, sand or gravel that fill with water are not considered waters of the U.S. However, because the construction basin is an artificial basin, the constructed basin may qualify as a water of the State as defined in State Water Resources Control Board (SWRCB) adopted Resolution 2019-0015.

As discussed in the 2022 IS/MND, following implementation of the project, the new 100-year flood plain would be fully contained within the proposed flood control basin. As a condition of project approval, the City would require approval of a CLOMR prior to the approval of grading plans or improvement plans, whichever comes first, and approval of a LOMR to be completed prior to issuance of any building permit. Additionally, water from the flood control basin on Lot A would discharge directly to Elk Grove Creek. Thus, the project was determined to be required to obtain a Lake and Streambed Alteration Permit pursuant to CDFW Section 1602.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND.¹¹ The currently proposed Project would not include changes to the Lot A disturbance area. Therefore, construction on Lot A associated with the currently proposed Project could result in impacts related to having a substantial adverse effect on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS or related to having a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Thus, the currently proposed Project would require approval of a CLOMR prior to the issuance of Grading Plans or Improvement Plans, approval of a LOMR to be completed prior to issuance of Building Permit, and would be subject to Mitigation Measure IV-7. With incorporation of Mitigation Measure IV-7, the currently proposed Project would result in a less-than-significant impact.

⁹ HELIX Environmental Planning. *Waterman Road (10-Acre) Aquatic Resources Delineation Report*. February 2020.

¹⁰ HELIX Environmental Planning. *Waterman Road (20.5-Acres) Aquatic Resources Delineation Report*. April 2021.

¹¹ U.S. Fish and Wildlife Service. *National Wetlands Inventory Wetlands Mapper*. Available at: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>. Accessed May 2023.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to substantial adverse effects on riparian habitat or State- or federally protected wetlands beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- d. According to the 2022 IS/MND, the Site is located in an industrial area of the City and is bordered by the UPRR tracks to the west, a roadway and petroleum asphalt plant to the south, Waterman Road to the east, and commercial buildings to the north. The existing setting of the surrounding area limits the potential for use of the Site as a wildlife movement corridor. In addition, the project was not determined to impede the flow of Elk Grove Creek, which could be used by migratory fish or as a wildlife corridor for other wildlife species. The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. In addition, since adoption of the 2022 IS/MND, the approved Grant Line Road Construction Aggregate Production and Recycling Facility has been sited to the south of Lot A and west of Lot B, which would further limit the potential for use of the Site as a wildlife movement corridor.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe impacts related to interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- e. According to the 2022 IS/MND, the project was determined to involve the removal of 44 trees, 23 of which are considered trees of local importance and are protected by the City, pursuant to Section 19.12.070 of the Elk Grove Municipal Code. Pursuant to the City's Tree Preservation and Protection Ordinance (codified in Elk Grove Municipal Code Section 19.12.080), development that would result in potential impacts to landmark trees and trees of local importance must obtain a Tree Permit from the City. Thus, as required by Mitigation Measure IV-8, approval of a tree permit would be required prior to any protected tree removal or work conducted within the critical root zone of any protected tree. The 2022 IS/MND noted that all 23 trees of local importance proposed for removal are damaged and/or have major structural or health issues.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. The currently proposed Project would not result in the removal of additional trees beyond those identified in the 2022 IS/MND. The currently proposed Project would still be required to comply with Elk Grove Municipal Code Section 19.12.080, and would be subject to Mitigation Measure IV-8.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe impacts related to conflicts with any local policies or ordinances protecting biological resources beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- f. According to the 2022 IS/MND, the City of Elk Grove is not a participating city in the South Sacramento Habitat Conservation Plan (SSHCP). Furthermore, the 2022 IS/MND included mitigation measures to address potential impacts to species which are covered by the SSHCP, including burrowing owl, Swainson's hawk, and giant garter snake, which do not conflict with the avoidance and minimization measures included in Chapter 5 of the SSHCP. Therefore, the 2022

IS/MND concluded that no impact would occur regarding a conflict with the provisions of such a plan.

Since approval of the 2022 IS/MND, the City of Elk Grove has not become a participating party to a Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). In addition, the currently proposed Project would be subject to all mitigation measures included in the 2022 IS/MND to address species covered by the SSHCP.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to conflicts with an approved HCP/NCCP, or local, regional, or State habitat conservation plan beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2020 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to biological resources. It should be noted that the previously required mitigation measures from the 2022 IS/MND, as presented below, would still be required to be implemented for the currently proposed Project.

Mitigation Measure(s)

The mitigation measures from the 2022 IS/MND applicable to the currently proposed Project are presented below.

Mitigation Measures from the Previous CEQA Documents

Special-Status Plants

IV-1. *Prior to the initiation of ground disturbance on Lot A, a qualified botanist shall conduct a botanical survey within the evident and identifiable blooming period for Bolander's water-hemlock (July to September), bristly sedge (May to September), hoary navarretia (May to June), marsh skullcap (June to September), Mason's lilaeopsis (April to November), Parry's tarplant (May to October), Peruvian dodder (July to October), saline clover (April to June), Sanford's arrowhead (May to October), side-flowering skullcap (July to September), watershield (June to September), woolly rose-mallow (June to September). Two surveys, one conducted between May and June, and one conducted between July to September, will satisfy the blooming period for all twelve plant species. The targeted botanical survey shall focus along Elk Grove Creek and within the non-native annual grassland.*

If no special-status plants are observed, the botanist shall document the findings in a letter report to be sent to Project proponent and City's Development Services Department, and no additional measures are recommended. If any of the twelve aforementioned special-status plants are identified within areas of potential construction disturbance, they shall be avoided to the greatest extent feasible, as determined by the City. If the plants cannot be avoided, then a qualified botanist shall prepare an avoidance and mitigation plan detailing protection and avoidance measures, transplanting procedures, success criteria, and long-term monitoring protocols for review and approval of the City's Development Services Department.

If any special-status plants are observed, a pre-construction worker awareness training shall be conducted alerting workers to the presence of and protections for special-status plants.

Swainson's Hawk

IV-2(a). Prior to the commencement of construction activities during the nesting season for Swainson's hawk (between March 1 and September 15), a qualified biologist shall conduct protocol-level preconstruction surveys within at least 2 (two) of the recommended survey periods within the nesting season that coincides with the commencement of construction activities, in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). At least one survey shall be conducted within each survey period selected; the dates should be adjusted in consideration of early or late nesting seasons for the year in which the surveys are conducted. If the final survey is completed more than 14 days prior to initiation of construction, an additional survey shall be conducted within 14 days of the start of construction to ensure that nesting has not been initiated within the intervening time. The qualified biologist shall conduct surveys for nesting Swainson's hawk within 0.25 mile of the Site, where legally permitted. The qualified biologist shall use binoculars to visually determine whether Swainson's hawk nests occur within the 0.25-mile survey area, if access is denied on adjacent properties. If no active Swainson's hawk nests are identified on or within 0.25 mile of the Site within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the City of Elk Grove within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required.

If active Swainson's hawk nests are found within 0.25-mile of construction activities, the qualified biologist shall contact the City of Elk Grove within one business day following the pre-construction survey to report the findings. For the purposes of this mitigation measure, construction activities are defined to include heavy equipment operation associated with vegetation clearing, grading, construction (use of cranes or draglines, new rock crushing) or other Project-related activities that could cause nest abandonment or forced fledging within 0.25-mile of a nest site between February 15 and August 31. Should an active nest be present within 0.25-mile of the construction area, the City of Elk Grove shall be consulted to establish take avoidance plan. Such a plan could include measures such as establishment of a construction setback, placement of high-visibility construction fencing along the setback boundaries, and monitoring of the nest during construction activities. The qualified biologist shall have the authority to stop construction activities if the hawks show signs of distress; if this occurs, construction may not resume until the City of Elk Grove is consulted and the construction setback is increased or other take-avoidance measures are modified. A letter report summarizing the survey results and describing implementation of the take avoidance measures will be submitted to the City of Elk Grove within 30 days of the final monitoring event. No further avoidance and minimization measures for nesting habitat would be required after submittal of the report.

IV-2(b). Prior to initiation of construction activities, the Project applicant shall mitigate for the loss of Swainson's hawk foraging habitat at a 1:1 ratio. Mitigation shall be accomplished through acquisition of a conservation easement(s) or other instrument suitable to preserve foraging habitat for the Swainson's hawk in accordance with either Section 16.130.040 or 16.130.110 of the Elk Grove Municipal Code.

Nesting Migratory Birds and Raptors

IV-4(a). If vegetation clearing, grading and/or construction activities are planned to occur during the migratory bird nesting season (February 15 to August 30), a preconstruction survey to identify active migratory bird nests shall be conducted by a qualified biologist within three days prior to construction initiation. The survey shall be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within a 500-foot radius of proposed construction areas, where access is available. If a break in construction activity of more than two weeks occurs, then subsequent surveys shall be conducted.

If active raptor nests, not including Swainson's hawk, are found, construction activities shall not take place within 500 feet of the nest/s until the young have fledged. If active songbird nests are found, a 100-foot no disturbance buffer shall be established. The no-disturbance buffers may be reduced if a smaller buffer is proposed by the qualified biologist and approved by the City (and CDFW if the species is a tricolored blackbird nesting colony) after taking into consideration the natural history of the species of bird nesting, the proposed activity level adjacent to the nest, habituation to existing or ongoing activity, and nest concealment (are there visual or acoustic barriers between the proposed activity and the nest). The qualified biologist shall visit the nest as needed to determine when the young have fledged the nest and are independent of the site, or the nest may be left undisturbed until the end of the nesting season.

IV-4(b). Should construction activities cause a nesting bird to do any of the following in a way that would be considered a result of construction activities: vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the exclusionary buffer shall be increased such that activities are far enough from the nest to stop the agitated behavior, or as otherwise required through consultation with CDFW and the City. The exclusionary buffer shall remain in place until the chicks have fledged or as otherwise determined by a qualified biologist in consultation with CDFW and the City. Construction activities may only resume within the buffer zone after a follow-up survey by the qualified biologist has been conducted and a report has been prepared indicating that the nest(s) are no longer active, and that new nests have not been identified.

Western Pond Turtle

IV-5. A qualified biologist shall conduct a preconstruction survey for western pond turtle on Lot A within 14 days prior to development or ground disturbing activities, including grading, vegetation clearing, tree removal, or construction, on Lot A. If western pond turtle is not observed on Lot A, a letter report shall be prepared to document the results of the survey and provided to the Project proponent and the City's Development Services Department, and no additional measures are recommended.

If development does not commence within 14 days of the pre-construction survey, or halts for more than 14 days, an additional survey of Lot A shall be conducted prior to resuming or starting work.

If western pond turtle is observed within Lot A, then a qualified biologist shall establish an appropriate no disturbance buffer around the area where it was observed (likely the intermittent stream) and wildlife exclusion fencing shall be installed. This fencing shall be comprised of silt fencing and shall be installed in an area recommended by the designated biologist. The fencing shall remain in place for the duration of construction and shall be

removed upon the completion of construction. The qualified biologist shall also conduct an environmental awareness training for all construction personnel prior to the initiation of work. As applicable, the pre-construction survey and environmental training may be combined with other recommended surveys and trainings.

Giant Garter Snake

IV-6(a). A qualified biologist shall conduct a field investigation on Lot A to delineate giant garter snake aquatic habitat within the Lot A footprint and within 300 feet of the Lot A footprint. Locations of delineated habitat may be noted on final site design plans in order to fully-avoid giant garter snake habitat.

If the currently proposed Project cannot fully-avoid giant garter snake habitat, then work shall be conducted during the snake's active season, between (May to September). During this period, the potential for direct mortality is reduced because snakes are expected to move and avoid danger. Construction and ground-disturbing activities within suitable giant garter snake habitat shall be initiated after May 1 and shall end prior to October 1. If it is anticipated that construction activities may extend beyond October 1st, then the Project proponent shall coordinate with the USFWS for additional measures to implement in order to minimize or avoid take.

If construction activities will occur within giant garter snake aquatic habitat, then the aquatic habitat shall be dewatered and then remain dry and absent of aquatic prey (e.g., fish and tadpoles) for 15 days prior to initiation of construction activities. Exclusion fencing shall be installed per the BMPs outlined below. If complete dewatering is not possible, then the Project proponent shall coordinate with the USFWS for additional measures to implement in order to minimize or avoid take.

Prior to the start of construction on Lot A, a qualified biologist shall conduct pre-construction clearance surveys using USFWS-approved methods within 24 hours prior to construction activities within identified upland/overwintering habitat. If construction activities stop for a period of two weeks or more, then another pre-construction clearance survey should be conducted within 24 hours prior to resuming construction activity.

Giant garter snake habitat, outside construction fencing, shall be avoided by all construction personnel. The fencing and the work area shall be inspected and maintained by the contractor until completion of the Project.

If a giant garter snake is encountered during construction activities, a qualified biologist shall notify the USFWS and the City's Development Services Department immediately. Construction activities shall be suspended in a 100-foot radius of the animal until the animal leaves the Site on its own volition. If necessary, the biologist shall notify the USFWS to determine the appropriate procedures related to relocation. If the animal is handled, a report shall be submitted, including date(s), location(s), habitat description, and any corrective measures taken to protect the giant garter snake within one business day to the USFWS. The biologist shall report any take of listed species to the USFWS, immediately. Any worker who inadvertently injures or kills a giant garter snake or who finds one dead, injured, or entrapped must immediately report the incident to the biologist.

Employ BMPs that are wildlife-friendly, in order to minimize disturbances to habitat. These may include, but are not limited to:

- *Install exclusion fencing (after aquatic habitat has been dewatered 15 days prior to construction activities) that will extend a minimum of 300 feet within the Lot A property line into adjacent uplands, or up to the construction footprint if the construction footprint is located within 300 feet of aquatic habitat to isolate both the aquatic and adjacent upland habitat. The exclusion fencing shall not impede use of the construction footprint. Exclusionary fencing will be erected 36 inches above ground and buried at least 6 inches below the ground to prevent snakes from attempting to move under the fence into the construction area. In addition, high-visibility fencing will be erected to identify the construction limits and to protect adjacent habitat from encroachment of personnel and equipment.*
- *Do not use plastic, monofilament, jute, or similar erosion-control matting that could entangle snakes or other wildlife. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material will be used to ensure snakes are not trapped. Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials.*
- *Cover all excavated steep-walled holes and trenches more than 6 inches deep, with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks at the end of each work day or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes and trenches will be inspected by the project applicant or contractor each morning to ensure that no wildlife has become entrapped. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within giant garter snake habitat will be inspected for presence of giant garter snake by the biologist prior to being moved.*

IV-6(b). Prior to the initiation of construction on Lot A, the qualified biologist shall conduct an environmental awareness training for all construction personnel for the potential of the giant garter snake to occur onsite. Evidence of the training shall be submitted to the City's Development Services Department.

IV-7. Prior to initiation of grading activities on Lot A, the Project applicant shall submit to the Central Valley Regional Water Quality Control Board an application for Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. The Project applicant shall be responsible for conducting all Project activities in accordance with the permit provisions outlined in the applicable Central Valley Water Board permit. A copy of the Water Quality Certification or waiver issued for the Project shall be submitted to the City Development Services Department.

IV-8. Prior to ground-disturbing activities and any tree removal, a tree permit shall be obtained from the City of Elk Grove, and the Project applicant shall comply with all of the conditions of the permit. As part of the approval of a tree permit for removal of a tree, the approving authority shall require mitigation for the loss of the tree consistent with Article IV (Mitigation for Tree Loss) of Elk Grove Municipal Code Chapter 19.12. A tree preservation plan shall be prepared for the Project identifying all protection and mitigation measures to be taken. The measures shall remain in place for the duration of the construction activities at the Site. The tree preservation plan shall be submitted to and approved by the City of Elk Grove Development Services Department.

Modified Mitigation Measures

Burrowing Owl

IV-3(a). *During the non-breeding season (late September through the end of January), the Applicant shall conduct a survey for burrowing owls and burrows or debris that represent suitable nesting or refugia habitat for burrowing owls within areas of proposed ground disturbance, as well as the areas within 500 feet of the proposed construction area, within 14 days of project construction. ~~Should owls be present, construction activities shall avoid the refugia by 250 feet until the burrowing owl vacates the site. CDFW may provide authorization for the applicant to conduct activities (burrow exclusion, etc.) that may discourage owl use.~~*

If burrowing owls are not found, then further mitigation measures are not necessary. If overwintering owls are located, the project applicant shall establish a minimum 160-foot (50-meter) buffer zone around active burrows. The buffer zone shall be flagged or otherwise clearly marked. CDFW-approved measures, such as visual screens, may be used to further reduce the buffer, provided a qualified biologist confirms that such measures would not cause agitated behavior. A written summary of the survey results shall be submitted to the City of Elk Grove Development Services Department before any construction permits are issued.

Burrow exclusion shall only be initiated during the non-breeding season for active burrows located within the project site boundaries, and in limited instances within a buffer zone around the project site, as determined by the City in consultation with CDFW after all avoidance and minimization measures have been exhausted. The project applicant shall coordinate with CDFW and acquire an Incidental Take Permit (ITP) if needed prior to exclusion. Following the ITP, any exclusion and burrow collapse activities shall be conducted in accordance with the CDFW Staff Report on Burrowing Owl Mitigation. The foregoing guidance requires a Burrowing Owl Exclusion Plan to be developed and approved by a qualified biologist in consultation with CDFW for the City's review and approval prior to burrow exclusion and/or closure.

If clearing and construction activities are planned to occur during the nesting period for burrowing owls (February 1–August 31), a qualified biologist shall conduct a targeted burrowing owl nest survey of all accessible areas within 500 feet of the proposed construction area within 14 days prior to construction initiation, as described in CDFW's Staff Report on Burrowing Owl Mitigation, published March 7, 2012. Surveys shall be repeated if Project activities are suspended or delayed for more than 14 days during nesting season. The results of the surveys shall be submitted to the Development Services Department. If burrowing owls are not detected, further mitigation is not required.

If an active burrowing owl nest burrow (i.e., occupied by more than one adult owl, and/or juvenile owls are observed) is found ~~within 250 feet of a construction area, construction shall cease within 250 feet of the nest burrow until a qualified biologist determines that the young have fledged and adult has vacated, or it is determined that the nesting attempt has failed.~~ If the applicant desires to work within 250 feet of the nest burrow, the applicant shall consult with CDFW and the City to determine if the nest buffer can be reduced. the project applicant shall implement the following measures:

*Waterman Brinkman Logistics Center Amendment
Administrative Addendum to the Waterman Brinkman Logistics Center Project*

- a. Avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young (including individuals or family groups foraging on or near the site following fledging); and
- b. Establish a minimum 500-foot non-disturbance buffer zone around nests, unless otherwise approved by the City in consultation with CDFW. The buffer zone shall be flagged or otherwise clearly marked to prevent project-related activities from occurring within the buffer zone. Should construction activities cause the nesting bird to vocalize, make defensive flights at intruders, or otherwise display agitated behavior, then the exclusionary buffer shall be increased such that project construction activities occur far enough from the nest that the bird(s) cease displaying such agitated behavior. Construction shall only occur within the 500-foot buffer zone during the breeding season if a qualified biologist monitors the nest and determines that the proposed activities would not disturb nesting behavior; that the birds have not begun egg-laying and incubation; or that the juveniles from the occupied burrows have fledged and moved off-site. Any modifications to the aforementioned buffer shall be approved by the City in consultation with CDFW. The buffer reduction request shall include relevant information and/or propose new measures to justify the buffer reduction.

IV-3(b). *If nesting burrowing owls are found during the pre-construction survey, mitigation for the permanent loss of burrowing owl foraging habitat (defined as all areas of suitable habitat within 250 feet of the active burrow) shall be accomplished at a 1:1 ratio. The mitigation lands may require habitat enhancements including enhancement or expansion of burrows for breeding, shelter and dispersal opportunity, and removal or control of population stressors. The In addition, the mitigation provided shall be consistent with recommendations in the State of California's Department of Fish and Game Staff Report on Burrowing Owl Mitigation, dated March 7, 2012, and may be accomplished within the Swainson's hawk foraging habitat mitigation area for the Project if burrowing owls have been documented utilizing that area, or if the qualified biologist, the City, and CDFW collectively determine that the mitigation strategy is suitable for both species.*

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
V. Cultural Resources.				
<i>Would the Project:</i>				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Pgs. 55 to 57	No	No	No
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Pgs. 55 to 57	No	No	No
c. Disturb any human remains, including those interred outside of formal cemeteries?	Pgs. 55 to 57	No	No	No

Discussion

a-c. According to the 2022 IS/MND, given that the Site has been subjected to previous disturbance, including regular discing, the potential to discover previously unknown historical or archeological resources on-site is low. Furthermore, based on the results of a search of the Native American Heritage Commission (NAHC) Sacred Lands File, the Site does not contain known Tribal Cultural Resources.¹² The Wilton Rancheria initiated consultation under Assembly Bill (AB) 52, and requested to complete a pedestrian survey of the Site. The pedestrian survey was completed, the Wilton Rancheria approved the cultural and tribal cultural resources mitigation measures included in the 2022 IS/MND, and further consultation was not required.

The 2022 project would be consistent with the Site’s current land use and zoning designations. As such, buildout of the Site with an industrial use was previously analyzed in the General Plan EIR. The General Plan EIR concluded that buildout of the General Plan, including the Site, would result in a less-than-significant impact related to cultural resources, provided that development projects within the City implement project-level mitigation to avoid resources.

The 2022 IS/MND concluded that while known resources do not exist on-site, previously unknown historical or archaeological resources, including human remains, may exist in the project area and be obscured by vegetation, siltation, or historic agricultural activities, resulting in an absence of surficial evidence. Such resources were determined to have the potential to be uncovered during ground-disturbing activities at the Site. As such, Mitigation Measures V-1 through V-3 were included in the 2022 IS/MND, which would ensure that if previously unknown resources are encountered during construction activities, the project would not cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains.

¹² Native American Heritage Commission. *Native American Consultation, Pursuant to Senate Bill 18, Government Code §65352.3 and §65352.4, as well as Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2, Waterman Brinkman Logistics Center PLNG20-016, Sacramento County.* October 20, 2020.

The currently proposed Project would be implemented within the development footprint area previously analyzed in the 2022 IS/MND. As such, the currently proposed Project would still be subject to 2022 IS/MND Mitigation Measures V-1 through V-3.

Based on the above information, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5, a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5, or disturbing any human remains, including those interred outside of formal cemeteries beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to cultural resources. It should be noted that the previously required mitigation measures from the 2022 IS/MND, as presented below, would still be required to be implemented for the currently proposed Project.

Mitigation Measure(s)

The mitigation measures from the 2022 IS/MND applicable to the currently proposed Project are presented below.

Mitigation Measures from the Previous CEQA Documents

- V-1. *In the event of the accidental discovery or recognition of any human remains, the Development Services Department shall be notified, and further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur and the County Coroner shall be notified to determine if an investigation into the cause of death is required. If the Coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 48 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the Development Services Department. Work on the Site cannot commence until after the human remains are removed from the area.*
- V-2. *In the event that cultural resources or tribal cultural resources are discovered during grading or construction activities during development of the Project, work shall halt*

immediately within 100 feet of the discovery, the Development Services Director shall be immediately notified. The Applicant's on-site Construction Supervisor, the City of Elk Grove, an archaeologist meeting the Secretary of the Interior's Standards in Archaeology, and any applicable Native American tribes shall assess the discovery to determine if it qualifies as a tribal cultural resource. The appropriate treatment of the discovery, including any applicable avoidance or mitigation strategies, shall be determined in consultation with the City and the applicable tribes. Construction activities within 100 feet of the discovery shall not commence until the appropriate treatment has been determined and any applicable mitigation has been completed. Mitigation shall follow the recommendations detailed in Public Resources Code Sections 21084.3(a) and (b), and CEQA Guidelines Section 15370. Work may continue on other parts of the Site while historical or unique archaeological resource mitigation takes place (Public Resources Code Section 21083.2).

- V-3. *The applicant shall retain the services of a qualified professional to conduct a worker environmental training session for the construction crew that will be conducting grading and excavation at the Site. The worker environmental training shall include archaeological and Tribal Cultural Resource awareness. The training shall be developed in coordination with the applicable tribes and approved by the City. The training shall identify the appropriate point of contact in the case of tribal cultural resource discovery and shall include relevant information regarding tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training shall also underscore the requirement for confidentiality and culturally-appropriate treatment of tribal cultural resources.*

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
VI. Energy. <i>Would the Project:</i>				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Pgs. 58 to 60	No	No	No
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Pgs. 58 to 60	No	No	No

Discussion

a,b. The 2022 IS/MND evaluated the potential for buildout of the project to result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, or to conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and determined that a less-than-significant impact would occur. It should be noted that energy use associated with structures facilitated by the project at the time of the 2022 IS/MND would have been anticipated to consume more energy as part of both construction and operation than the energy use that would be consumed as part of the currently proposed Project. Such a conclusion is because the currently proposed Project would be subject to the currently adopted 2022 California Green Building Standards Code (CALGreen Code) and the Building Energy Efficiency Standards, which include more stringent requirements related to energy efficiency than previous iterations of the aforementioned regulations. The currently proposed Project’s potential effects related to energy demand during construction and operations are provided below.

Construction Energy Use

Construction of the currently proposed Project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the Site where energy supply cannot be met through a hookup to the existing electricity grid.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the Site would be disturbed at a time, with operation of construction equipment occurring at different locations on the Site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-

Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

Based on the above, the temporary increase in energy use occurring during construction of the currently proposed Project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, construction activities would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

The currently proposed Project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code, the Building Energy Efficiency Standards, and all applicable regulations included within the City's Climate Action Plan (CAP) would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high-performance attics and walls, and high-efficacy lighting. Required compliance with the CBSC would ensure that the building energy use associated with the currently proposed Project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the Project by Sacramento Municipal Utilities District (SMUD) would comply with the State's Renewables Portfolio Standard, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030. As a result, a portion of the electricity consumed during Project operation would be generated from renewable sources. With regard to transportation energy use, the currently proposed Project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. While the currently proposed Project would modify Building B to increase from 164,900 sf to 180,894 sf, the currently proposed Project would still be required to comply with all applicable regulations related to energy efficiency. Therefore, such an increase would not result in a new significant impact related to wasteful, inefficient, or unnecessary consumption of energy resources.

Conclusion

Based on the above, the currently proposed Project would not result in new significant impacts related to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation, or conflicts with or obstruction of a State or local plan for renewable energy or energy efficiency beyond what was identified in the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to energy.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
VII. Geology and Soils.				
<i>Would the Project:</i>				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Pgs. 61 and 62	No	No	No
ii. Strong seismic ground shaking?	Pgs. 61 and 62	No	No	No
iii. Seismic-related ground failure, including liquefaction?	Pgs. 62 and 63	No	No	No
iv. Landslides?	Pgs. 62 and 63	No	No	No
b. Result in substantial soil erosion or the loss of topsoil?	Pgs. 63 and 64	No	No	No
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Pgs. 62 and 63	No	No	No
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial	Pgs. 62 and 63	No	No	No

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
direct or indirect risks to life or property?				
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Pg. 64	No	No	No
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Pgs. 64 and 65	No	No	No

Discussion

ai-aii. The 2022 IS/MND evaluated the potential for the project to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault, or by strong seismic ground shaking, and concluded a less-than-significant impact would occur.

As discussed in the 2022 IS/MND, Sacramento County is less affected by seismic events and geologic hazards than other portions of the State.¹³ The California Geological Survey’s (CGS) map of seismic shaking hazards in California shows that most of Sacramento County, including the City of Elk Grove, is located in a relatively low-intensity ground shaking zone. The nearest mapped fault is the Foothills Fault System, located approximately 21 miles east of the City. The City does not contain any active or potentially active faults, and is not located within an Alquist-Priolo Earthquake Fault Zone. Thus, the potential for surface rupture due to faulting occurring beneath the Site during the design life of the proposed development would be low.

The currently proposed Project would be implemented within the development footprint area previously analyzed in the 2022 IS/MND. As such, due to the Site’s proximity to the nearest active faults, the potential exists for the proposed buildings to be subject to seismic ground shaking. the same geological conditions would be expected to occur. However, the proposed buildings would be properly engineered in accordance with the CBSC, which includes engineering standards appropriate for the seismic area in which the Site is located. The most recent edition of the CBSC is adopted as Section 16.04.010 of the City’s Municipal Code. Conformance with the design standards is enforced through building plan review and approval by the City of Elk Grove Division of Building prior to the issuance of building permits. Proper engineering of the Project would ensure that seismic-related effects would not cause adverse impacts.

¹³ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.6-1]. February 2019.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or strong seismic ground shaking beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

aiii,aiv, As discussed below, the 2022 IS/MND evaluated the project's potential effects related to lateral spreading, liquefaction, landslides, subsidence, and expansive soils.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. According to the 2022 IS/MND, the Site does not contain open faces within a distance that would be considered susceptible to lateral spreading. Therefore, the potential for lateral spreading to affect the Site was considered to be low. The Project would be developed within the footprint previously analyzed by the 2022 IS/MND, and would not result in new significant impacts or substantially more severe significant impacts beyond what were previously identified in the 2022 S/MND.

Liquefaction

Liquefaction is the loss of soil strength due to seismic forces generating various types of ground failure. As noted in the General Plan EIR, the soils underlying the City's Planning Area are relatively dense/stiff, and the upper 50 feet of soil are above the depth of groundwater; therefore, the 2022 IS/MND concluded that the potential for liquefaction within the City, including the Site, is considered low.¹⁴ In addition, as discussed in the 2022 IS/MND, on-site soils to depths of more than 50 feet consist primarily of dense and variably cemented silts, sands, and clays. Considering the density of the soils and the lack of groundwater within the upper 60 feet of the soil profile, seismic induced liquefaction is not expected to occur on the Site. The currently proposed Project would comply with applicable regulations within the CBSC and would be developed within the footprint previously analyzed by the 2022 IS/MND. Therefore, the potential for liquefaction to pose a risk to the currently proposed Project is low, and the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts beyond what were previously identified in the 2022 IS/MND.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. According to the 2022 IS/MND, the Site does not contain, and is not adjacent to, any steep slopes. Thus, landslides are not likely to occur on- or off-site as a result of the Project, and the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts beyond what were previously identified in the 2022 IS/MND.

Subsidence and Expansive Soils

When subsurface earth materials move, the movement can cause the gradual settling or sudden sinking of ground. The phenomenon of settling or sinking ground is referred to as subsidence, or settlement. Expansive soils are soils which undergo significant volume change with changes in

¹⁴ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.6-3]. February 2019.

moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted, potentially resulting in damage to building foundations.

According to the Geotechnical Investigation prepared for the 2022 IS/MND,¹⁵ loose fill materials and disturbed soils are spread on the surface of the majority of the Site. Much of the disturbed soils include concentrations of decaying or potentially decaying organic matter and, as a result, the disturbed soils are not considered suitable for support of building or pavement construction in the present condition. Additionally, the native near-surface soils on-site consist primarily of both low plasticity silts and moderate to high plasticity clays. The silts are of low swelling potential. However, the clays are capable of developing significant expansion pressures with variations in moisture content. Thus, the surface soils on the Site, including loose fill and clays, are subject to subsidence and expansion. Construction of the project on areas of the Site that are dominated by such soils could be subject to hazards related to the movement of floor slabs, pavements, and building foundations. As such, the 2022 IS/MND concluded that potential risks could occur related to subsidence and being located on expansive soil. Thus, Mitigation Measure VII-1 was included, which requires adherence to all engineering recommendations provided in the site-specific Geotechnical Investigation prepared for the 2022 project.

The currently proposed Project would occur within the same development footprint previously analyzed in the 2022 IS/MND, and, therefore, would be subject to mitigation included therein. With incorporation of the mitigation measure described above, the currently proposed Project would not result in a substantial direct or indirect risks to life or property related to expansive soils or subsidence. In addition, the currently proposed Project would be subject to applicable regulations set forth by the CBSC, including the applicable engineering design provisions of the 2022 CBC, which would reduce the potential for impacts related to expansive soils to occur.

Conclusion

Based on the above information, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to liquefaction, landslides, lateral spreading, subsidence, and being located on expansive soil beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b. The 2022 IS/MND assessed the potential for the project to result in substantial soil erosion or the loss of top soil and concluded that a less-than-significant impact would occur. As detailed therein, the potential exists for wind and water to erode portions of the exposed topsoil during construction, which could adversely affect downstream storm drainage facilities. However, the City's Municipal Code establishes administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion caused by land clearing, grubbing, grading, filling, and land excavation activities. Section 16.44.050 includes the following requirement:

Except as provided by EGMC Section 16.44.060, 16.44.065 or 16.44.070, a grading and erosion control permit shall be required to: A) grade, fill, excavate, store or dispose of three hundred fifty (350 yd³) cubic yards or more of soil or earthy material, or B) clear and grub one (1) acre or greater of land within the City. A separate permit is required for work on each site unless sites are contiguous, have the same ownership, and are included in the approved plan. Any determination by the Director as to whether a permit is required may be appealed pursuant to the provisions of EGMC Section 16.44.300.

¹⁵ Raney Geotechnical Inc. *Geotechnical Investigation Brinkman and Waterman Development*. June 10, 2016.

Furthermore, pursuant to Section 16.44.090, plans submitted to the City must include the location, implementation schedule, and maintenance schedule of all erosion control measures and sediment control measures to be implemented or constructed prior to, during or after the proposed activity, along with a description of measures designed to control dust and stabilize the construction site road and entrance. Pursuant to Section 16.44.150, grading and erosion control permit applications and improvement plans may only be issued or approved by the City if the Public Works Director finds that the project would not adversely affect surrounding properties and public rights-of-way, the water quality of watercourses, or existing drainage.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. As discussed further in Section X, Hydrology and Water Quality, of this Addendum, the Site is 29.5 acres, and thus, development of the currently proposed Project would be subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which necessitates preparation of a Storm Water Pollution Prevention Plan (SWPPP) and incorporation of BMPs to control erosion and sedimentation during Project construction. Furthermore, the Project would be subject to the requirements of Elk Grove Municipal Code Chapter 16.55. Thus, the currently proposed Project would not result in substantial soil erosion or the loss of top soil.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to substantial soil erosion or the loss of top soil beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- e. According to the 2022 IS/MND, the project was anticipated to connect to the existing Sacramento Area Sewer District (SacSewer) sanitary sewer lines located in the project vicinity. The construction or operation of septic tanks or other alternative wastewater disposal systems was not included as part of the project. The 2022 IS/MND concluded that no impact regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.

The currently proposed Project would not include installation of septic tanks or construction of alternative wastewater systems. Therefore, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts than were previously analyzed in the 2022 IS/MND. As such, the currently proposed Project would remain consistent with the conclusions of the 2022 IS/MND.

- f. As noted in the General Plan EIR, impacts to paleontological resources can occur when excavation activities encounter fossiliferous geological deposits and cause physical destruction of fossil remains. The potential for impacts on fossils depends on the sensitivity of the geologic unit and the amount and depth of grading and excavation. Much of the City's Planning Area is considered highly sensitive for paleontological resources. Therefore, the 2022 IS/MND concluded that a potentially significant impact could occur, and Mitigation Measure VII-2 was included.

Because the currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND, ground-disturbing activities associated with the Project could potentially result in the uncovering of paleontological resources, and Mitigation Measure VII-2 would still be required.

Based on the above information, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to a unique paleontological

resource or unique geologic feature beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to geology and soils. The previously required mitigation measure from the 2022 IS/MND, as presented below, would still be required to be implemented for the currently proposed Project.

Mitigation Measure(s)

The mitigation measures from the 2022 IS/MND applicable to the currently proposed Project are presented below.

Mitigation Measures from the Previous CEQA Documents

VII-1 *Prior to issuance of grading permits, the project Civil Engineer shall show on the project plans that the project design adheres to all engineering recommendations provided in the site-specific Geotechnical Investigation prepared for the currently proposed Project by Raney Geotechnical, Inc. Proof of compliance with all recommendations specified in the Geotechnical Investigation shall be subject to review and approval by the City Engineer.*

VII-2. *Before the start of any earthmoving activities, the Project applicant shall retain a qualified scientist (e.g., geologist, biologist, paleontologist) to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. Training on paleontological resources shall also be provided to all other construction workers but may use videotape of the initial training and/or written materials rather than in-person training.*

If any paleontological resources (fossils) are discovered during grading or construction activities within the Project area, work shall be halted immediately within 50 feet of the discovery, and the City Planning Division shall be immediately notified. The Project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology guidelines (SVP 2010). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the City to be necessary and feasible shall be implemented by the applicant before construction activities resume in the area where the paleontological resources were discovered.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
VIII. Greenhouse Gas Emissions.				
<i>Would the Project:</i>				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Pgs. 66 to 70	No	No	No
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Pgs. 66 to 70	No	No	No

Discussion

a,b. Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, cumulative global GHG emissions contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project’s GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

As discussed in the 2022 IS/MND, implementation of the project was determined to cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO₂) and, to a lesser extent, other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O) associated with area sources, mobile sources or vehicles, utilities (electricity), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project was determined to be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO₂ equivalents (MTCO₂e/yr).

Regulatory Context

In September 2006, AB 32 was enacted, which requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. AB 32 delegated the authority for implementation to the CARB and directs the CARB to enforce the statewide cap. In accordance with AB 32, CARB prepared the Climate Change Scoping Plan (Scoping Plan) for California, which was approved in 2008 and subsequently revised in 2014 and 2017. The 2017 revision to the Scoping Plan updated the plan in compliance with Senate Bill (SB) 32. SB 32 codified emissions reduction targets for the year 2030, which had previously been established by Executive Order B-30-15.

Pursuant to SMAQMD and Section 15183.5 of the CEQA Guidelines, a project may satisfy applicable GHG analysis requirements under CEQA by demonstrating compliance with a qualified CAP.¹⁶ Specifically, Section 15183.5 states the following:

Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later Project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).

On February 27, 2019, the City of Elk Grove adopted an updated CAP that includes City-wide goals and strategies for the reduction of GHG emissions. In order to meet the City's GHG emissions targets, the CAP sets forth a number of GHG emission reduction implementation measures. Individual projects that are consistent with the implementation measures of the CAP would be considered to meet the City's emissions targets and, thereby, would not conflict with implementation of the CAP or the statewide emission reduction targets of AB 32 or SB 32.

For informational purposes, GHG emissions resulting from construction and operations of the currently proposed Project were modeled using the CalEEMod emissions model under the same assumptions as discussed in Section III, Air Quality, of this Addendum. Construction and operations of the currently proposed Project and the associated GHG emissions are discussed below, and all modeling outputs are included in Appendix A to this Addendum.

Construction GHG Emissions

Construction-related GHG emissions constitute a temporary release and are, therefore, not typically expected to generate a significant contribution to global climate change, as global climate change is inherently a cumulative effect that occurs over a long period of time and is quantified on a yearly basis. Nonetheless, the 2020 IS/MND determined that total construction-related GHG emissions would be 1,066.37 MTCO_{2e}. Such emissions would be released over the course of the approximately 1.5-year construction period.

The currently proposed Project would result in the same area of disturbance as compared to the 2022 project. During construction activities, the grading phase is typically the most intensive phase of construction, and would result in the highest amount of emissions associated with the use of off-road construction equipment. Given that the entirety of the project site would be graded under both the proposed Project and the 2022 project, the additional 15,994 sf that would be constructed for Building B under the proposed Project, as compared to the 2022 project, would not result in a significant increase in construction-related GHG emissions. The intensity and duration of project construction would remain similar as compared to what was previously analyzed for the Site, construction of the currently proposed Project would not be anticipated to exceed the construction GHG emissions determined for the 2022 project.

¹⁶ Sacramento Metropolitan Air Quality Management District. *Climate Action Planning in the Sacramento Metropolitan Air Quality Management District*. November 2017.

Operational GHG Emissions

As discussed above, the determination of significance for operational emissions is based on consistency with the City’s CAP. Nonetheless, it should be noted that the proposed changes to Building B associated with the currently proposed Project would not cause a substantial change to the operational activities associated with the proposed warehouse buildings. In addition, while the building area for Building B would increase from 164,900 sf to 180,894 sf, the proposed Project would reduce the number of Building B grade-level roll up doors from six to four and the total number of Building B parking stalls (including trailer parking) from 214 to 208 stalls. By reducing the number of dock positions, roll-up doors, and parking stalls, operation of the proposed Project would involve slightly less overall trips as compared to the 2022 project. Thus, given that mobile source emissions are the highest emission source associated with the proposed Project’s operational GHG emissions, the proposed Project would be expected to result in slightly decreased emissions from the 2022 project. Therefore, GHG emissions, particularly from mobile sources, associated with the currently proposed Project are expected to decrease, as compared to what could have resulted from the development that was analyzed in the 2022 IS/MND.

Elk Grove Climate Action Plan

The Elk Grove CAP is considered a qualified plan for determining consistency with AB 32 and SB 32 and, thus, determining the significance of Project-related GHG emissions. The City’s General Plan EIR concluded that, with implementation of the CAP, buildout of the City’s planning area would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions, and a less-than-significant impact would occur. As such, projects that are consistent with the CAP and implement all applicable CAP measures would result in less-than-significant impacts related to GHG emissions. Table 4, below, presents a consistency discussion for each of the CAP measures that are required for analysis in CEQA documents and demonstrates the Project’s consistency with the CAP implementation measures, as compared to the conclusions of the 2022 IS/MND.

Table 4 Elk Grove CAP Consistency Review Checklist Summary	
CAP Implementation Measure	Project Consistency
<p>BE-4. Building Stock: Encourage or Require Green Building Practices in New Construction Encourage new construction projects to comply with CALGreen Tier 1 standards, including a 15 percent improvement over minimum Title 24 Part 6 Building Energy Efficiency Standards.</p>	<p>The 2022 IS/MND concluded that the project applicant had not yet committed to comply with CALGreen Tier 1 standards, and implementation of 2022 IS/MND Mitigation Measure VIII-1 would ensure compliance with this measure. With respect to the currently proposed Project, the Project applicant still has not yet committed to comply with CALGreen Tier 1 standards, and implementation of Mitigation Measure VIII-1 would still be applicable to the currently proposed Project.</p>
<p>BE-5. Building Stock: Phase in Zero Net Energy Standards in New Construction Phase in zero net energy (ZNE) standards for new construction, beginning in 2020 for residential projects and 2030 for commercial projects. Specific phase-in requirements and ZNE compliance standards will be supported by updates in the triennial building code updates, beginning with the 2019 update.</p>	<p>The 2022 IS/MND concluded that, although not anticipated, should the initiation of construction begin after the year 2030, project construction shall be required to abide by ZNE standards, and implementation of Mitigation Measure VIII-1 would ensure compliance with this measure. The currently proposed Project would still be anticipated to begin construction before 2030. Nonetheless, implementation of Mitigation Measure VIII-1 would still be applicable to the currently proposed Project.</p>

**Table 4
Elk Grove CAP Consistency Review Checklist Summary**

CAP Implementation Measure	Project Consistency
<p>BE-6. Building Stock: Electrification in New and Existing Residential Development Encourage and incentivize new residential developments to include all-electrical appliances and HVAC systems in the design of new projects. Support local utilities in implementing residential retrofit programs to help homeowners convert to all electrical appliances and HVAC systems. Explore the feasibility of phasing in minimum standards for all-electric developments.</p>	<p>According to the 2022 IS/MND, considering the project did not include any residential development, measure BE-6 was determined to not be applicable. The currently proposed Project does not include any residential development, and, therefore measure BE-6 would still not be applicable.</p>
<p>BE-7. Building Stock: Solar Photovoltaics in New and Existing Residential and Commercial Development Encourage and require installation of on-site solar photovoltaic (PV) in new single-family and low-rise multi-family developments. Promote installation of on-site PV systems in existing residential and commercial development.</p>	<p>The 2022 IS/MND concluded that the project did not include new single-family or low-rise multi-family developments. In addition, the project involved the construction of <i>new</i> commercial development, and would not be required to upgrade any existing development. Therefore, this measure was determined to not be applicable to the project. The currently proposed Project would consist of new industrial development, and, therefore measure BE-7 would still not be applicable.</p>
<p>TACM-3. Intracity Transportation Demand Management The City shall continue to implement strategies and policies that reduce the demand for personal motor vehicle travel for intracity (local) trips.</p>	<p>The 2022 IS/MND concluded that, based on the description included in the City’s CAP, this measure is primarily intended for implementation at the City-wide level. Furthermore, the 2022 IS/MND concluded that the project was determined to be consistent with the City’s required vehicle miles traveled (VMT) reduction. As such, the project was determined to generally comply with this measure. As noted in Section XVIII, Transportation, of this Addendum, the currently proposed Project would still be consistent with the City’s required VMT reduction, and, therefore, the currently proposed Project would still comply with this measure.</p>
<p>TACM-6. Limit Vehicle Miles Traveled Achieve a 15 percent reduction in daily VMT compared to existing conditions (2015) for all new development in the City, consistent with State-mandated VMT reduction targets for land use and transportation projects.</p>	<p>The 2022 IS/MND concluded that project-specific VMT analysis was not required by the City and, thus, TACM-6 was determined to not be applicable to the project. Nonetheless, the project was determined to be consistent with the required VMT reduction. As noted in Section XVIII, Transportation, of this Addendum, the currently proposed Project would still be consistent with the City’s required VMT reduction, and, therefore, the currently proposed Project would still comply with this measure.</p>
<p>TACM-8. Tier 4 Final Construction Equipment Require all construction equipment used in Elk Grove to achieve EPA-rated Tier 4 Final diesel engine standards by 2030 and encourage the use of electrified equipment where feasible.</p>	<p>The 2022 IS/MND concluded that the project applicant had not yet committed to requiring that all construction equipment be EPA-rated Tier 4 Final. However, the 2022 IS/MND assumed that construction would occur during 2021 and 2022 and would be completed prior to 2030, and, therefore, the project was not required to use entirely Tier 4 Final construction equipment. Implementation of Mitigation Measure VIII-1 would ensure compliance with the</p>

Table 4 Elk Grove CAP Consistency Review Checklist Summary	
CAP Implementation Measure	Project Consistency
	general intent of this measure. While the currently proposed Project would be anticipated to be operational by 2030, implementation of Mitigation Measure VIII-1 would still be applicable to the currently proposed Project.
<p>TACM-9. EV Charging Requirements Adopt an electric vehicle (EV) charging station ordinance that establishes minimum EV charging standards for all new residential and commercial development. Increase the number of EV charging stations at municipal facilities throughout the City.</p>	<p>Consistent with measure TACM-9, the City of Elk Grove adopted Section 23.58.120 of its Municipal Code related to electric vehicle charging. Pursuant to 23.58.120(C), any industrial project greater than 10,000 sf shall designate three percent of total spaces with EV infrastructure, and three percent as EV-ready. The 2022 IS/MND concluded that, considering the project would have included approximately 363 parking spaces in total, at least 11 spaces would have included an EV charging station and 11 would have been EV-ready. As such, the project was determined to comply with this measure. While the currently proposed Project would result in a reduction of parking stalls in Lot B, the currently proposed Project would still be subject to applicable EV standards. As such the currently proposed Project would still comply with this measure.</p>
<p>Source: City of Elk Grove. Climate Action Plan: 2019 Update. December 2019.</p>	

As shown above, with implementation of Mitigation Measure VIII-1, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND and would comply with all applicable measures presented within the CAP.

Conclusion

As noted previously, the City’s CAP was established to ensure the City’s compliance with the statewide GHG reduction goals required by AB 32 and SB 32. As demonstrated in the table above, with implementation of Mitigation Measure VIII-1, the Project would be consistent with all applicable measures within the City’s CAP. In addition, as discussed, GHG emissions generated during Project construction would be generally similar to what was anticipated for buildout of the Site as part of the 2022 IS/MND. As such, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the generation of GHG emissions or conflicts with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2020 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to GHG emissions. It should be noted that the previously required mitigation measures from the 2022 IS/MND, as presented below, would still be required to be implemented for the currently proposed Project.

Mitigation Measure(s)

The mitigation measure from the 2022 IS/MND applicable to the currently proposed Project are presented below.

Mitigation Measures from the Previous CEQA Documents

VIII-1 Prior to issuance of any grading or building permits, Project Building Plans shall demonstrate compliance with the following applicable measures included in the City's Climate Action Plan, to the satisfaction of the City of Elk Grove Development Services Department:

- *The Project shall comply with 2019 CALGreen Tier 1 standards, including a 15 percent improvement over minimum Title 24, Part 6, Building Energy Efficiency Standards (CAP Implementation Measure BE-4);*
- *A minimum of 25 percent of the off-road construction fleet used during construction of the Project shall include Environmental Protection Agency certified off-road Tier 4 diesel engines (or better) (CAP Implementation Measure TACM-8); and*
- *Should Project construction begin after January 1, 2030, the Project shall implement all applicable ZNE standards, subject to the discretion of the City (CAP Implementation Measure BE-5)*

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
IX. Hazards and Hazardous Materials.				
<i>Would the Project:</i>				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Pg. 71	No	No	No
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Pgs. 72 and 73	No	No	No
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Pg. 73	No	No	No
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Pg. 74	No	No	No
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	Pg. 74	No	No	No
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Pg. 74	No	No	No
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Pg. 74	No	No	No

Discussion

- a. As discussed in the 2022 IS/MND, operations associated with the project was determined to be typical of other warehouses in the City, and would be governed by the uses permitted for the Site pursuant to the City's Municipal Code and General Plan. While not anticipated, in the event that future operations associated with the project would involve the routine use, transport, or disposal of hazardous materials, such materials would be safely managed in accordance with the applicable regulations. For example, the project would be required to comply with the regulations set forth by 22 CCR Section 66263, Standards Applicable to Transporters of Hazardous Waste, which requires transporters of hazardous materials to ensure that releases of hazardous wastes into the environment would not occur, including the discharge of hazardous wastes into soils, drainage systems, and surface and ground water systems. In addition, 22 CCR Section 66263.31 requires transporters of hazardous materials to clean up any hazardous waste discharge that occurs during transportation to the extent that hazardous waste discharge no longer presents a hazard to human health or the environment. Compliance with such measures would ensure that, if hazardous materials are used on-site, such materials would not present a significant hazard. Thus, the 2022 IS/MND concluded that a less-than-significant impact would occur.

The currently proposed Project would include the same industrial operations as evaluated in the 2022 IS/MND. Thus, operations of the currently proposed Project would still be subject to the regulations set forth by 22 CCR Section 66263, Standards Applicable to Transporters of Hazardous Waste, and impacts would be less than significant.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b. The 2022 IS/MND analyzed the potential for the project to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and concluded that while the project would involve the use and transport of hazardous materials at the Site during construction activities, with compliance with California Health and Safety Codes and local City ordinances, construction of the project was not determined to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

With respect to potential hazards and hazardous materials associated with upset or accident conditions related to existing on-site conditions, the 2022 IS/MND determined that, based on the Phase I ESAs prepared separately for Lot A and Lot B,^{17,18} the Site does not contain any recognized environmental conditions (RECs) such as stressed vegetation, septic systems, wells, above-ground storage tanks (ASTs), underground storage tanks (USTs), contamination conditions, improper hazardous substance/petroleum products use or storage, environmentally suspicious dumping or discharge, or significant staining.

¹⁷ Bole & Associates Environmental Consultants. *Phase I Environmental Site Assessment, APNs 134-011-084/-085, 9195 Brinkman Court, Elk Grove, Sacramento County, CA 95624*. March 3, 2020.

¹⁸ Brusca Associates, Inc. *Phase I Environmental Site Assessment, Waterman Road Property, APN 134-0181-041, Waterman Road, Elk Grove, Sacramento County, California*. October 23, 2019.

The currently proposed Project would include construction of the same land use types within the footprint of the Site that was already analyzed in the 2022 IS/MND. The currently proposed Project would not result in an increase in disturbance as compared to the previously evaluated project. Construction activities associated with the currently proposed Project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the Site and transported to and from the Site during construction. However, as noted above, the project contractor would be required to comply with all California Health and Safety Code and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Compliance with such regulations would ensure that the currently proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment during construction activities, particularly associated with construction equipment.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to creating a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- c. According to the 2022 IS/MND, the nearest school to the Site is Florence Markofer Elementary School, located approximately 3,000 feet (0.57-mile) west of the Site. In addition, as discussed above, hazardous materials would not be emitted during construction or operation of the project. Thus, the 2022 IS/MND concluded that no impact would occur related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The currently proposed Project would occur in the same footprint evaluated in the 2022 IS/MND. In addition, new schools have not been established within 0.25-mile of the Site since adoption of the 2022 IS/MND.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to emitting hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- d. The California Environmental Protection Agency (Cal EPA) has compiled a list of data resources that provide information regarding the facilities or sites identified as meeting the “Cortese List” requirements, pursuant to Government Code 65962.5. The components of the Cortese List include the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List,¹⁹ the list of leaking UST sites from the SWRCB’s GeoTracker database,²⁰ the list of solid

¹⁹ Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese)*. Available at: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed November 2024.

²⁰ State Water Resources Control Board. *GeoTracker*. Available at: <https://geotracker.waterboards.ca.gov/map/?myaddress=California&from=header&cqid=8858350455>. Accessed November 2024.

waste disposal sites identified by the SWRCB, and the list of active Cease and Desist Orders (CDOs) and Cleanup and Abatement Orders (CAOs) from the SWRCB.²¹ According to the 2022 IS/MND, the Site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As such, the 2022 IS/MND concluded that the Project would not create a significant hazard to the public or the environment associated with such, and no impact would occur.

Since adoption of the 2022 IS/MND, the Site has not been included on the DTSC Hazardous Waste and Substances Site List. In addition, the Site has not been listed on the SWRCB's list of solid waste disposal sites, list of leaking UST sites, or list of active CDOs and CAOs.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 beyond what was previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- e. According to the 2022 IS/MND, the nearest airport to the Site is the private use Mustang Airport, located approximately 4.9 miles southeast of the Site. As such, the Site is not located within two miles of any public airports or private airstrips, and does not fall within an airport land use plan area. Therefore, the 2022 IS/MND concluded that no impact related to a safety hazard for people residing or working in the project area related to such would occur.

The currently proposed Project would occur in the same footprint evaluated in the 2022 IS/MND. In addition, new airports have not been established within two miles of the Site since adoption of the 2022 IS/MND.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to resulting in a safety hazard or excessive noise for people residing or working in the project area within two miles of a public airport or public use airport beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- f. As noted in the City's General Plan EIR, Elk Grove participates in the multijurisdictional Sacramento County Local Hazard Mitigation Plan (LHMP), last updated in 2021.²² The purpose of the LHMP is to guide hazard mitigation planning to better protect the people and property of the County from the effects of hazard events. The Sacramento LHMP includes policies and programs for participating jurisdictions to implement that reduce the risk of hazards and protect public health, safety, and welfare. In addition to participating in the County's LHMP, the City of Elk Grove maintains an Emergency Operations Plan (EOP) that provides a strategy for the City to coordinate and conduct emergency response. The intent of the EOP is to provide direction on how to respond to an emergency from the initial onset, through an extended response, and into the recovery process.

The 2022 IS/MND concluded that the project would not alter the existing roadway configuration in the Project vicinity. In addition, given that the project is consistent with the Site's current land use and zoning designations, the project was not anticipated to physically interfere with the LHMP

²¹ CalEPA. *Cortese List Data Resources*. Available at: <https://calepa.ca.gov/sitecleanup/corteselist/>. Accessed November 2024.

²² Sacramento County. *Sacramento County Multi-Jurisdictional Local Hazard Mitigation Plan Update*. September 2021.

or the EOP, particularly with identified emergency routes. Specifically, development of the Site and associated effects on emergency evacuation has been anticipated by the City and analyzed in the General Plan EIR. The General Plan EIR concluded that buildout of the City, including the Site, would result in a less-than-significant impact related to conflicting with evacuation routes in the event of an emergency. Thus, the project would not physically interfere with the LHMP or the EOP, particularly with identified emergency routes.

As previously discussed, primary site access for Building A would be provided by two proposed site entrance drives along Brinkman Court, as well as a semi-truck access lane that would be separate from employee vehicle parking. Access to Lot B would be provided from three driveways from Waterman Road. Throughout the Site, internal drive aisles would be 25 feet wide where parking occurs, and 20 feet wide where parking does not occur. The currently proposed Project would be consistent with the Site's current land use and zoning designations, and, therefore, the currently proposed Project would not physically interfere with the LHMP or the EOP, particularly with identified emergency routes.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to impairing implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- g. As discussed in the 2022 IS/MND, the City of Elk Grove does not contain any areas that are designated as moderate, high, or very high Fire Hazard Severity Zones.²³ In addition, the Site is surrounded by existing development and is located within an urban area within the City. Thus, the 2022 IS/MND concluded that the potential for wildland fires to reach the Site would be relatively limited. Furthermore, all new development within the Site would be required, pursuant to the California Fire Code, to incorporate ignition resistant construction standards and design features to resist the intrusion of flame or embers projected by a vegetation fire (wildfire exposure).

The currently proposed Project would occur in the same footprint evaluated in the 2022 IS/MND. Thus, the potential for wildland fires would still be limited. The Project is not located on a substantial slope, and the project area does not include any existing features that would substantially increase fire risk for future residents, workers, or visitors. Given that the Site is located within a developed urban area and is situated adjacent to existing roads, water lines, and other utilities, the Project would not result in substantial fire risks related to installation or maintenance of such infrastructure. In addition, development of the warehouses associated with the currently proposed Project would similarly be subject to the requirements of the California Fire Code.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to exposing people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant

²³ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.11-1]. February 2019.

impacts from what had been anticipated for the Site in the 2022 IS/MND related to hazards and hazardous materials.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
X. Hydrology and Water Quality.				
<i>Would the Project:</i>				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Pgs. 75 to 77	No	No	No
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Pgs. 77 and 78	No	No	No
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	Pg. 78	No	No	No
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Pg. 78	No	No	No
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Pg. 78	No	No	No
iv. Impede or redirect flood flows?	Pgs. 78 and 79	No	No	No
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Pg. 79	No	No	No

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Pgs. 77 and 78	No	No	No

Discussion

- a. The 2022 IS/MND evaluated the potential for the project to violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality and concluded that a significant impact could occur. As detailed therein, the project would not include land uses typically associated with the generation or discharge of polluted water, and would be designed to adequately treat stormwater runoff from the Site prior to discharge. However, a SWPPP has not yet been prepared for the project. Without preparation of a SWPPP, proper implementation of BMPs cannot be ensured at this time, and the project’s construction activities and operations could result in an increase in erosion, and consequently affect water quality.

To address the potential impact, Mitigation Measure X-1 requires compliance with the NPDES Construction General Permit, including preparation of a SWPPP and incorporation of BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. Mitigation Measure X-2 requires compliance with the City of Elk Grove Municipal Separate Storm Sewer System (MS4) permit (Order No. R5-2016-0040-005), consistent with Chapter 15.12 of the City’s Municipal Code. With incorporation of Mitigation Measures X-1 and X-2, the 2022 IS/MND concluded a less-than-significant impact would occur.

Potential impacts related to water quality that would occur during Project construction and operation of the currently proposed Project are discussed further below.

Construction

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Water quality degradation is regulated by the federal NPDES Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the SWRCB through nine RWQCBs. New development within the City that disturbs one or more acres of land is required to comply with the NPDES Construction General Permit and prepare a SWPPP incorporating BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. Examples of BMPs that could be used during construction activities include straw wattles, sandbags, gravel traps, and filters; erosion control measures such as vegetation and physical stabilization; and sediment control measure such as fences, dams, barriers, berms, traps, and basins. The currently proposed Project would disturb greater than one acre of land, and, therefore, would be subject to the requirements of the State’s General Construction Permit and Mitigation Measure X-1. Compliance with the Construction General Permit would ensure that the Project does not violate any water quality standards or

waste discharge requirements or otherwise substantially degrade surface or groundwater quality during construction activities.

Operation

With respect to Project operation, NPDES discharge requirements address waste discharge, such as stormwater, from MS4s. The City of Elk Grove jointly participates as an MS4 permittee, together with the cities of Citrus Heights, Folsom, Galt, Rancho Cordova, Sacramento, and the County of Sacramento. NPDES permit terms are five years. The current region-wide NPDES Phase I MS4 Permit (Order No. R5- 2016-0040), adopted by the Central Valley RWQCB in June 2016, allows each permittee to discharge urban runoff from the MS4 in its respective municipal jurisdiction, and requires the permittees to enroll under the Region-wide MS4 Permit as their current individual permits expire. Regional MS4 Permit activities are managed jointly by the Sacramento Stormwater Quality Partnership, which consists of the seven jurisdictions covered by the permit. Under the permit, each permittee is also responsible for ensuring that stormwater quality management plans are developed and implemented that meet the discharge requirements of the permit. Under the 2016 permit, measures should be included in the stormwater quality management plans that demonstrate how new development would incorporate LID design features in projects. The Elk Grove Public Works Department is responsible for ensuring the City's specific Phase I MS4 Permit (Order No. R5-2016-0040-005) requirements are implemented. Compliance with the MS4 Permit, as regulated through Elk Grove Municipal Code Chapter 15.12 and required by 2022 IS/MND Mitigation Measure X-2, would ensure that potential impacts to water quality standards or waste discharge requirements would not occur during operation of the currently proposed Project.

As discussed in the 2022 IS/MND, during operations, new stormwater lines would direct stormwater runoff from both Lot A and Lot B through a Contech StormFilter stormwater treatment device and then to an outfall to Elk Grove Creek. Use of the Contech StormFilter would ensure that runoff discharged into Elk Grove Creek would comply with all City stormwater requirements. The currently proposed Project would alter the design of drainage facilities from what was discussed in the 2022 IS/MND. In the previous design, the on-site LID features and stormwater treatment and attenuation facilities were to be underground. However, after the approval of the CLOMR from FEMA, additional hydraulic modeling led to the conclusion that the proposed stormwater detention basin could be used to manage both on-site runoff and provide peak flow attenuation along Elk Grove Creek. The bottom portion of the basin would provide LID features and water quality treatment for the on-site runoff for both proposed buildings, and the upper portion of storage would provide regional peak flow attenuation at Elk Grove Creek. Due to the mutually beneficial nature of the currently proposed design, the previous approach of fully undergrounding the entire on-site measures has been abandoned. Flows would enter the basin at the southeast end of the basin. Once routed through the LID and water quality treatment features, the flows would pond in the basin. The ponding would continue until reaching the elevation of the outfall at the northeast end of the basin, and would outfall to Elk Grove Creek to the north. Use of the stormwater and bio-retention facilities would ensure that runoff discharged into Elk Grove Creek would comply with all City stormwater requirements, and 2022 IS/MND Mitigation Measure X-2 would remain applicable to the currently proposed Project. Therefore, during operation, the currently proposed Project would comply with all relevant water quality standards and waste discharge requirements and would not degrade water quality.

Conclusion

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the violation of any water quality standards

or waste discharge requirements or the substantial degradation of surface or groundwater quality beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b,e. The Site is located within the Elk Grove Water District (EGWD) Service Area 1, which is serviced exclusively by groundwater. Groundwater is supplied to Service Area 1 by a series of three shallow wells and four deep wells, all located within the EGWD service area. The EGWD is located in the Sacramento Valley South American Groundwater Basin, referred to as the Central Basin Area of the Sacramento County Groundwater Basin, as identified in the Central Sacramento County Groundwater Management Plan (CSCGMP). As stated in the CSCGMP, the Water Forum estimated the long-term average annual sustainable groundwater pumping yield from the entire Central Basin to be 273,000 acre-feet per year (AFY).

The Central Basin is not considered to be in a state of overdraft. Due to the active planning by water agencies and conjunctive use efforts, water available in the basin is anticipated to remain stable in the future. According to the EGWD's Urban Water Management Plan (UWMP), and based upon the Central Basin's total projected water supplies for normal, single-dry, and multiple-dry years over a 20-year projection, the Central Basin is anticipated to have sufficient water to meet estimated water demands for the build-out of the District's Service Area 1 and Service Area 2.

As discussed in the 2022 IS/MND, the Site is relatively small compared to the size of the groundwater basin and, thus, does not constitute a substantial source of groundwater recharge. The project would have allowed for some continued infiltration through the proposed detention basin and unpaved areas of the Site. Therefore, the 2022 IS/MND determined that the project would not substantially interfere with groundwater recharge. Given that the project is consistent with the Site's General Plan land use and zoning designations, groundwater use associated with development of the project has been anticipated by the City and accounted for in regional planning efforts, including the projections included in the CSCGMP and the EGWD's UWMP. The 2022 IS/MND concluded that potential impacts related to water supply would be less-than-significant.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Furthermore, although the currently proposed Project result in increased building area, the currently proposed Project would not result in increased impervious surfaces beyond those assumed in the 2022 IS/MND. The currently proposed Project would still be consistent with the Site's General Plan land use and zoning designations, and groundwater use associated with development of the currently proposed Project has been anticipated by the City and accounted for in regional planning efforts, including the projections included in the CSCGMP and the EGWD's UWMP. Through implementation of the proposed detention basin and unpaved areas of the Site, the currently proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the Sacramento Valley South American Subbasin.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to substantially decreasing groundwater supplies or interfering substantially with groundwater recharge beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- ci-ciii. As discussed in the 2022 IS/MND, Chapter 16.44, Land Grading and Erosion Control, of the City's Municipal Code requires projects that would increase drainage flows and have the potential to

exceed the capacity of existing drainage facilities to identify, on project plans, the improvements needed to accommodate the increased flows. Such improvements must comply with the performance standards set forth in the regional NPDES MS4 permit. Consistent with Chapter 16.44 of the Municipal Code, the project would be required to include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures to limit the rate and amount of stormwater runoff leaving the Site.

Development of the project was anticipated to result in an increase in impervious surfaces on the Site, which would alter the existing drainage pattern of the Site. The 2022 IS/MND determined that the project was designed to use the maximum pervious areas and use the existing drainage patterns from the southeast to the northwest. Additionally, to manage runoff, the project was anticipated to use an underground detention system that discharges runoff into Contech Treatment Vaults. The Contech Treatment Vaults in conjunction with a detention system were anticipated to create a prolonged and constricted discharge rate that imitates the pre-construction hydrology of the Site. The 2022 IS/MND determined that the project would not increase post-project runoff flowrates from pre-project flowrates, and the project would not significantly impact the hydraulic characteristics of Elk Grove Creek. Therefore, the 2022 IS/MND concluded that the project would not substantially alter the existing drainage pattern of the Site or area in a manner which would result in erosion, siltation, or flooding on- or off-site, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff, and a less-than-significant impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. However, as discussed above, the previous approach of fully undergrounding the entire on-site measures has been abandoned. A Drainage Report was prepared for the currently proposed Project by Watermark Engineering, Inc. to determine if the proposed drainage infrastructure, water quality treatment and LID features, and flood control design comply with the City of Elk Grove engineering standards and design requirements (see Appendix B).²⁴ As discussed therein, runoff associated with the currently proposed Project would meet the general requirements in that developed flows would equal to or less than existing conditions flows for the two-, five-, 10-, 50- and 100-year storms. In addition, the proposed detention basin would provide more stormwater attenuation compared to the previously proposed underground detention facility, and would provide complete management of the stormwater runoff.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to substantially altering the existing drainage pattern of the Site or area, or creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or substantially increasing the rate or amount of surface runoff in a manner that would result in flooding on- or off-site beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- civ. The 2022 IS/MND evaluated the potential for development facilitated by buildout of the LRSP area to place structures within a 100-year flood hazard as mapped on a FEMA Flood Insurance Rate Map (FIRM). As discussed therein, pursuant to the General Plan EIR, in the event of dam failure, Folsom Dam and Sly Park Dam have the potential to cause flooding in the General Plan Planning Area. While the Site is located outside of the Sly Park Dam inundation zone, the Site is within the dam failure inundation zone for the Folsom Dam.²⁵ However, in 2017, USACE

²⁴ Watermark Engineering, Inc. *Waterman and Brinkman Logistics Center Drainage Report*. Updated July 16, 2024.

²⁵ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [Figure 5.9-5]. February 2019.

completed improvements to the Folsom Dam spillway on the American River to help reduce downstream flood risk.

The Site is located within FEMA FIRM Panel 06067C0338H. Approximately five acres at the northwest corner of Lot A is considered a human-made wetland, identified in both the FEMA Special Hazard Area and the 100-year Flood Plain as determined by the City of Elk Grove's Storm Drainage Master Plan. Thus, the 2022 IS/MND determined that the Project would include development within a Special Flood Hazard Area and would be subject to the flood damage regulations included in Chapter 16.50 of the City's Municipal Code. The flood control detention basin for Elk Grove Creek were determined to fully alleviate existing impacts during the 100-year storm event. In addition, the foundation of Building A would be placed on imported fill to lift the building foundation out of the floodplain. However, because the project was anticipated to involve development within a 100-year Flood Plain, the 2022 IS/MND included Mitigation Measure X-3, which requires compliance with the conditions specified in the FEMA CLOMR to be met and a Final Letter of Map Revision to be issued by FEMA. The 2022 IS/MND concluded that with implementation of Mitigation Measure X-3, impacts would be less than significant.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. The currently proposed Project's flood control design would be addressed by installing an approximately 10-acre-foot flood control basin near the Project's existing floodplain to alleviate rises in Elk Grove Creek's 100-year flow. As discussed above, the proposed flood control detention basin for Elk Grove Creek would fully alleviate existing impacts during the 100-year storm event. In addition, the foundation of Building A would be placed on imported fill to lift the building foundation out of the floodplain. The currently proposed Project would not include changes to the Lot A disturbance area. Since preparation of the 2022 IS/MND, the CLOMR was approved by FEMA. Nonetheless, because the currently proposed Project would still involve development within a 100-year Flood Plain, a Final Letter of Map Revision would still be required, and 2022 IS/MND Mitigation Measure X-3 would remain applicable to the currently proposed Project.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to impeding or redirecting flood flows or flood hazard zones beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- d. Impacts related to development within a flood hazard zone are discussed under question 'civ' above. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The 2022 IS/MND concluded that because the Site is not located within the vicinity of an ocean or a large closed body of water, the Site would not be exposed to flooding risks associated with tsunamis or seiches, and no impact would occur. The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND, and, therefore, would not be exposed to flooding risks associated with tsunamis or seiches.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to impeding or redirecting flood flows or flood hazard zones beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to hydrology and water quality. The previously required mitigation measures from the 2022 IS/MND, as presented below, would still be required to be implemented for the currently proposed Project.

Mitigation Measure(s)

The mitigation measures from the 2022 IS/MND applicable to the currently proposed Project are presented below.

Mitigation Measures from the Previous CEQA Documents

- X-1. *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the SWRCB. The developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. Construction (temporary) BMPs for the Project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to the Director of Public Works/City Engineer for review and approval and shall remain on the Site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*
- X-2. *Prior to approval of improvement plans, the Project improvement plans shall demonstrate, to the satisfaction of the City Engineer, that the Project design is compliant with the City of Elk Grove MS4 permit (Order No. R5-2016-0040-005), consistent with Chapter 15.12 of the City's Municipal Code.*
- X-3. *Prior to building permit approval, the Project applicant shall ensure that the conditions specified in the Federal Emergency Management Agency (FEMA) Conditional Letter of Map Revision have been met and a Final Letter of Map Revision issued by FEMA. Evidence thereof shall be submitted to the City's Development Services Department for review and approval.*

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XI. Land Use and Planning.				
<i>Would the Project:</i>				
a. Physically divide an established community?	Pg. 80	No	No	No
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Pg. 80	No	No	No

Discussion

- a. According to the 2022 IS/MND, the Site does not contain existing housing or other development. In addition, the project would be compatible with the existing light industrial and commercial uses to the north, east, and south of the Site. The project was not anticipated to alter the existing general development trends in the area or isolate an existing land use. Therefore, the 2022 IS/MND concluded that the project would not physically divide an established community and a less-than-significant impact would occur.

Since adoption of the 2022 IS/MND, the Site has remained undeveloped and residential uses have not been established on-site, nor has the Site been designated or rezoned for residential uses. While the Grant Line Road Construction Aggregate Production and Recycling Facility Project has been approved since the adoption of the 2022 IS/MND and would be located immediately west and south of the Site, the currently proposed Project would be compatible with the associated industrial uses. Therefore, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the physical division of an established community beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b. The 2022 IS/MND evaluated the potential for the project to conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and determined that a less-than-significant impact would occur. As detailed therein, the Site is designated HI and zoned HI. The General Plan specifies that the HI land use designation applies to heavy industrial activities, including manufacturing, processing, fabrication, utility equipment and service yards, assembly, wholesaling, warehousing, and distribution occurring inside or outside of an enclosed building. Similarly, as noted under Section 23.24.020 of the City’s Municipal Code, the HI zoning district accommodates a broad range of manufacturing and industrial uses, including uses that involve the manufacture, fabrication, assembly, or processing of materials. The proposed warehouses would be considered an industrial land use and, thus, the project was determined to be consistent with the Site’s current land use and zoning designations. The project was not determined to conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, City policies and guidelines related to the City’s noise standards and all applicable SWRCB regulations related

to stormwater. Additionally, the project was determined to comply with Chapter 19.12, Tree Preservation and Protection, and Chapter 16.130, Swainson's Hawk Impact Mitigation Fees, of the Elk Grove Municipal Code.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. The Project would be consistent with Elk Grove Municipal Code standards and General Plan policies, as well as other applicable requirements adopted for the purpose of avoiding or mitigating environmental effects. In addition, the Project would be subject to mitigation measures set forth herein, which would ensure that all potential impacts are reduced to a less-than-significant level. For example, as discussed under Section IV, Biological Resources, of this Addendum, through incorporation of various mitigation measures included in the 2022 IS/MND, the currently proposed Project would be required to complete preconstruction surveys to ensure that potential impacts to protected wildlife species do not occur. Overall, through adherence to applicable policies, regulations, and standards set forth at the federal, State, and local levels, the currently proposed Project would not cause a substantial adverse environmental impact.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to inconsistency with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to land use and planning.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XII. Mineral Resources. <i>Would the Project:</i>				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Pg. 81	No	No	No
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Pg. 81	No	No	No

Discussion

a,b. As discussed in the 2022 IS/MND, according to the City’s General Plan, mineral deposits or mineral extraction activities are not located within the City’s Planning Area.²⁶ Therefore, the 2022 IS/MND concluded that the project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State or result in the loss of availability of a locally-important mineral resource recovery site delineated in the City’s General Plan. The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Given that new mineral resources would not have occurred within the plan area subsequent to the adoption of the 2022 IS/MND, consistent with the conclusions of the 2022 IS/MND, the Project would not result in the loss of availability of a known mineral resource or of a locally important mineral resource recovery site.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the loss of availability of a known mineral resource that would be of value to the region and the residents of the State or the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan beyond what were previously identified in the 2022 IS/MND. Therefore, the Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to mineral resources.

Mitigation Measure(s)

None required.

²⁶ City of Elk Grove. *General Plan* [pg. 7-25]. February 2019.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XIII. Noise.				
<i>Would the Project result in:</i>				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Pgs. 82 to 88	No	No	Yes
b. Generation of excessive groundborne vibration or groundborne noise levels?	Pgs. 88 to 90	No	No	No
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	Pg. 90	No	No	No

Discussion

a. The discussions below present information regarding sensitive noise receptors in proximity to the Site, the existing noise environment, and the potential for the currently proposed Project to result in impacts during project construction and operation. The following terms are referenced in the sections below:

- Decibel (dB): A unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels. All references to dB in this section will be A-weighted unless noted otherwise.
- Day-Night Average Level (L_{dn}): The average sound level over a 24-hour day, with a +10 decibel weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours.
- Equivalent Sound Level (L_{eq}): The average sound level over a given time-period.
- Maximum Sound Level (L_{max}): The maximum sound level over a given time-period.
- Minimum Sound Level (L_{min}): The minimum sound level over a given time-period.
- Median Sound Level (L_{50}): The sound level exceeded 50 percent of the time over a given time-period.
- Community Noise Equivalent Level (CNEL): The 24-hour average noise level with noise occurring during evening (7:00 PM to 10:00 PM) hours weighted by a factor of three and nighttime hours weighted by a factor of ten prior to averaging.

Sensitive Noise Receptors

Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Surrounding land uses include commercial development to the north, IN Self Storage and the East Elk Grove Water Treatment Plant to the east, industrial development to south and southwest, vacant land directly to the east and west, and single-family residential beyond the vacant land to the east and west. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. The nearest noise-sensitive receptor is the single-family residence located approximately 200 feet to the east, across Waterman Road.

City Noise Standards

Pursuant to Section 6.32.100(E) of the City’s Municipal Code, noise sources associated with construction are exempt from the City’s noise standards, provided such activities only occur between the hours of 7:00 AM and 7:00 PM when located adjacent to residential uses.²⁷ Section 6.32.100(E) of the Municipal Code is reproduced below as follows:

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities only occur between the hours of 7:00 a.m. and 7:00 p.m. when located in close proximity to residential uses. Noise associated with these activities not located in close proximity to residential uses may occur between the hours of 6:00 a.m. and 8:00 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in progress be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 7:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner;

The Elk Grove General Plan Noise Element Table 8-4 establishes standards for daytime and nighttime noise levels. The standards are reproduced below in Table 5.

Table 5 Performance Standards for Typical Stationary Noise Sources*		
Noise Level Descriptor	Daytime (7 AM to 10 PM)	Nighttime (10 PM to 7 AM)
Typical Noise Sources – Hourly L_{eq} , dB	55	45
Noise Sources Which Are Tonal, Impulsive, Repetitive, or Consist Primarily of Speech or Music – Hourly L_{eq} , dB	50	40
<p>* Applies to noise-sensitive land uses only.</p> <p>a. These standards will apply generally to noise sources that are not tonal, impulsive, or repetitive in nature. Typical noise sources in this category would include HVAC systems, cooling towers, fans, and blowers.</p> <p>b. These standards apply to noises which are tonal in nature, impulsive, repetitive, or which consist primarily of speech or music (e.g., humming sounds, outdoor speaker systems). Typical noise sources in this category include: pile drivers, drive-through speaker boxes, punch presses, steam valves, and transformer stations. HVAC/pool equipment are exempt from these standards.</p> <p>c. These noise levels do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwelling). HVAC/pool equipment are exempt from these standards</p>		

²⁷ City of Elk Grove. *Municipal Code, Section 62.32.100*. Current through May 8, 2019.

- d. The City may impose noise level standards which are more or less restrictive based upon either of the following determinations:
- Existing low or high ambient noise levels; or
 - Site-specific conditions or considerations as determined applicable by the designated approving authority only for new projects affected by existing non-transportation sources.

Source: City of Elk Grove, 2019.

Construction Noise

As discussed in the 2022 IS/MND, during construction of the project, heavy equipment would be used for grading, excavation, paving, and building construction, which could result in temporary noise level increases at nearby sensitive receptors. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the Site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and trucks, would be used on-site. Table 6 presents predicted noise levels for the use of typical construction equipment.

Table 6 Construction Equipment Noise						
Type of Equipment	Predicted Noise Levels, L_{max} dB				Distances to Noise Contours (feet)	
	Noise at 25'	Noise at 50'	Noise at 100'	Noise at 300'	70 dB L_{max} contour	65 dB L_{max} contour
Backhoe	84	78	72	62	126	223
Compactor	89	83	77	67	223	397
Compressor (air)	84	78	72	62	126	223
Concrete Saw	96	90	84	74	500	889
Dozer	88	82	76	66	199	354
Dump Truck	82	76	70	60	100	177
Excavator	87	81	75	65	177	315
Generator	87	81	75	65	177	315
Horizontal Boring Jack	88	82	76	66	199	354
Jackhammer	94	89	83	73	446	792
Pneumatic Tools	91	85	79	69	281	500

Source: Saxelby Acoustics, 2020.

As shown in Table 6, typical activities involved in construction would generate maximum noise levels ranging from 70 to 84 dBA at a distance of 100 feet. Considering the nearest sensitive receptor is located approximately 200 feet east of the Site's eastern boundary, the 2022 IS/MND determined that construction noise levels at the nearest receptor would be even lower. However, the anticipated noise levels from construction of the project could exceed the existing ambient noise levels.

As noted above, pursuant to Section 6.32.100(E) of the City's Municipal Code, construction activities are exempt from the City's noise standards during daytime hours. Construction activities are temporary in nature, and were anticipated to occur during the normal daytime hours for which

they are exempt from the noise standards. However, if construction activities were to occur outside the normal daytime hours, the 2022 IS/MND concluded that a potentially significant impact could occur related to creation of a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

To address the potential impact, the 2022 IS/MND included Mitigation Measure XIII-1 which restricts construction activities to specific times and require additional provisions for construction, such as the inclusion of noise-attenuating features during construction and required locations for stationary equipment. The 2022 IS/MND concluded that with implementation of Mitigation Measure XIII-1, impacts related to construction noise would be less than significant.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. The currently proposed Project would not cause any additional construction noise that would exceed what was already evaluated in the 2022 IS/MND. Therefore, additional noise control mitigation measures would not be required for construction noise, beyond those already outlined in the 2022 IS/MND, and the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what was previously anticipated. Nonetheless, Mitigation Measure XIII-1 would still be applicable to the currently proposed Project.

Operation Noise

According to the 2022 IS/MND, on-site parking lot circulation and the proposed loading docks were anticipated to be the primary non-transportation noise sources associated with the project. The 2022 IS/MND concluded that the project would generate maximum non-transportation daytime noise of 50 dBA L_{eq} , and nighttime noise of 44 dBA L_{eq} , at the nearest existing sensitive receptors. Ambient noise measurements indicated that existing daytime noise levels were approximately 62 to 73 dBA L_{eq} at the sensitive uses due to existing traffic and railroad noise. Therefore, the 2022 IS/MND concluded that operation of the project would not generate noise levels in excess of existing ambient noise levels, or in excess of the City of Elk Grove exterior noise standards, and operational noise impacts were determined to be less than significant.

The existing ambient noise environment in the project vicinity was quantified by Saxelby Acoustics by conducting continuous (24-hour) noise level measurements at two locations on the Site, as well as short-term noise level measurements at three locations along the Site boundary as part of the Environmental Noise Assessment prepared for the 2022 IS/MND. A Noise Addendum was prepared for the currently proposed Project by Saxelby Acoustics to address changes to the layout of Building B, which re-oriented the building so the loading docks would face towards the east instead of the west (see Appendix C).²⁸

Existing ambient noise levels at the receptors to the east were found to be 73 dBA L_{eq} (day) and 68 dBA L_{eq} (night) (see Table 7). Noise measurements sites are shown in Figure 6. The noise level values shown in the table were collected within approximately 25 feet of the Waterman Road centerline, while the nearest outdoor activity area for the single-family residence to the east is set back approximately 180 feet from centerline. Adjusting for distance, the noise levels at the existing residence would be 60 dBA L_{eq} during the daytime, 55 dBA L_{eq} during the nighttime, and 62 dBA L_{dn} , as shown below in Table 7.

²⁸ Saxelby Acoustics. *Noise Addendum for the Waterman Brinkman Noise Analysis – City of Elk Grove, California*. January 10, 2025.

Figure 6
Noise Measurement Sites



Table 7 Summary of Existing Background Noise Measurement Data								
Site	Date	Average Measured Hourly Noise Levels, dBA						
		L_{dn}	Daytime (7:00 AM - 10:00 PM)			Nighttime (10:00 PM - 7:00 AM)		
			L_{eq}	L₅₀	L_{max}	L_{eq}	L₅₀	L_{max}
LT-1 (Receptors to East)	11/09/20 – 11/10/20	75	73	66	88	68	52	85
(Receptor to East, Outdoor Area)*		62.14	60	53	75	55	39	72
LT-2 (Receptor to West)	11/09/20 – 11/10/20	68	60	44	77	62	49	76

* Distance adjusted noise levels from LT-1 data.

Source: Saxelby Acoustics – 2020.

Therefore, according to Saxelby, setting the City’s noise limits to the existing values of 60 dBA L_{eq} during daytime hours and 55 dBA L_{eq} during nighttime hours would be warranted.

Additionally, sensitive receptors to the west experience existing noise levels of 60 dBA L_{eq} during daytime hours and 62 dBA L_{eq} during nighttime hours. Therefore, increasing the applicable noise standard to 60 dBA during daytime and nights hours is warranted. The noise study prepared for the Grant Line Road Construction Aggregate Production and Recycling Facility Project also concluded that a daytime noise limit of 60 dBA L_{eq} was appropriate, and did not include nighttime noise measurements. Therefore, a conservative limit of 50 dBA L_{eq} was applied to nighttime noise.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. However, the currently proposed Project would revise the layout of Building B, and the loading docks would face towards the east, instead of the west. As such, the Noise Addendum prepared for the currently proposed Project updated the noise model for the new layout following the methods previously outlined in the 2022 IS/MND. The results of the updated analysis are shown in Figure 7 through Figure 9.

In addition, the Noise Addendum considered cumulative noise exposure expected to occur in combination with the Grant Line Road Construction Aggregate Production and Recycling Facility. Noise level generation of the facility were combined with the currently proposed Project to determine cumulative noise levels at sensitive receptors. Table 8 shows the Project and Cumulative noise levels for the sensitive receptors located around the Site. Table 9 shows the ambient noise level increase due to the Project and Cumulative conditions. Based on the noise levels shown in Table 8 and Table 9, the Project and Project Plus Cumulative conditions would meet the noise level standards of the City of Elk Grove and the currently proposed Project would not require additional noise control measures.

Figure 7
Currently Proposed Project Daytime Noise Contours (dBA L_{eq})

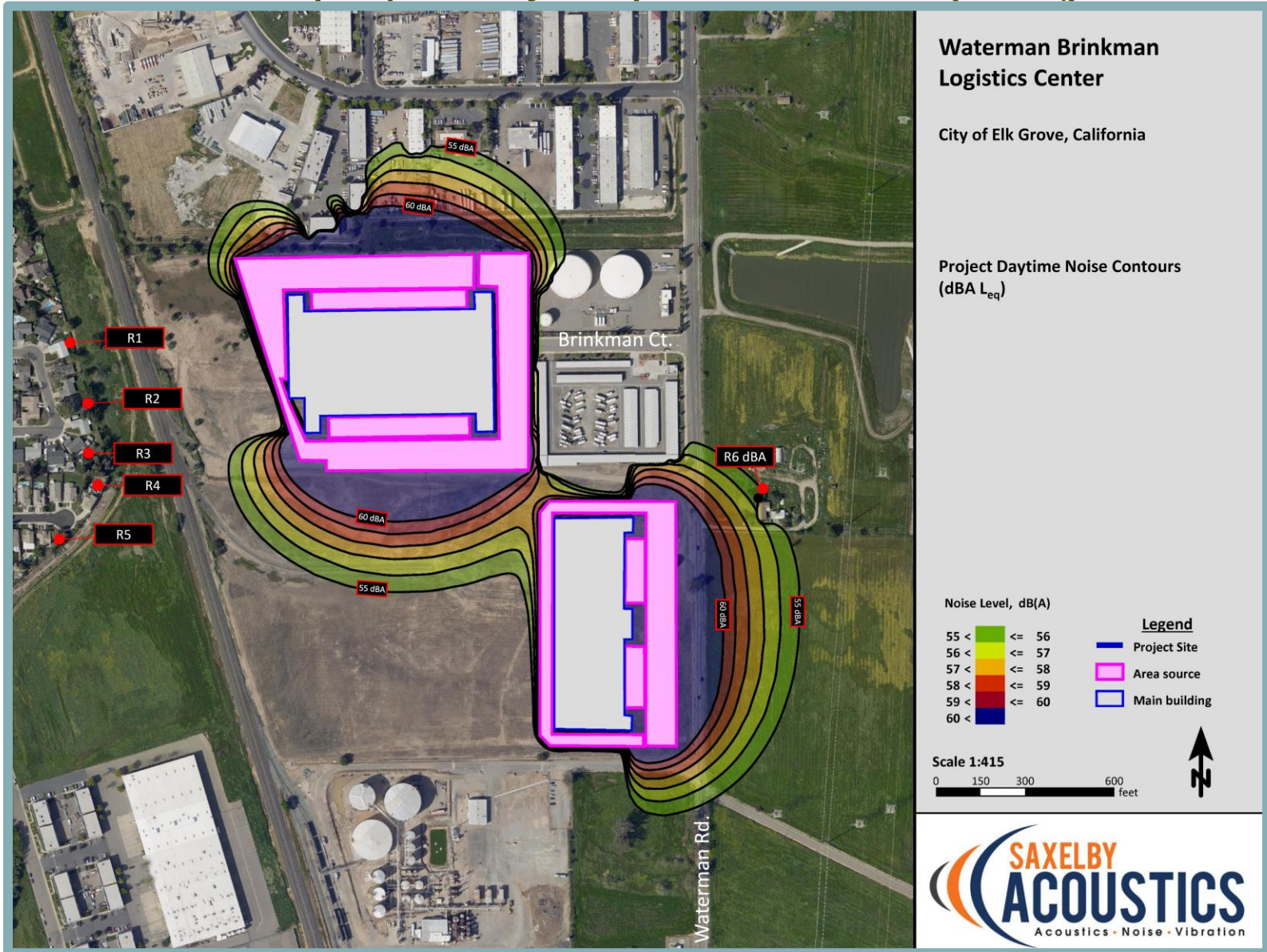


Figure 8
Currently Proposed Project Nighttime Noise Contours (dBA Leq)

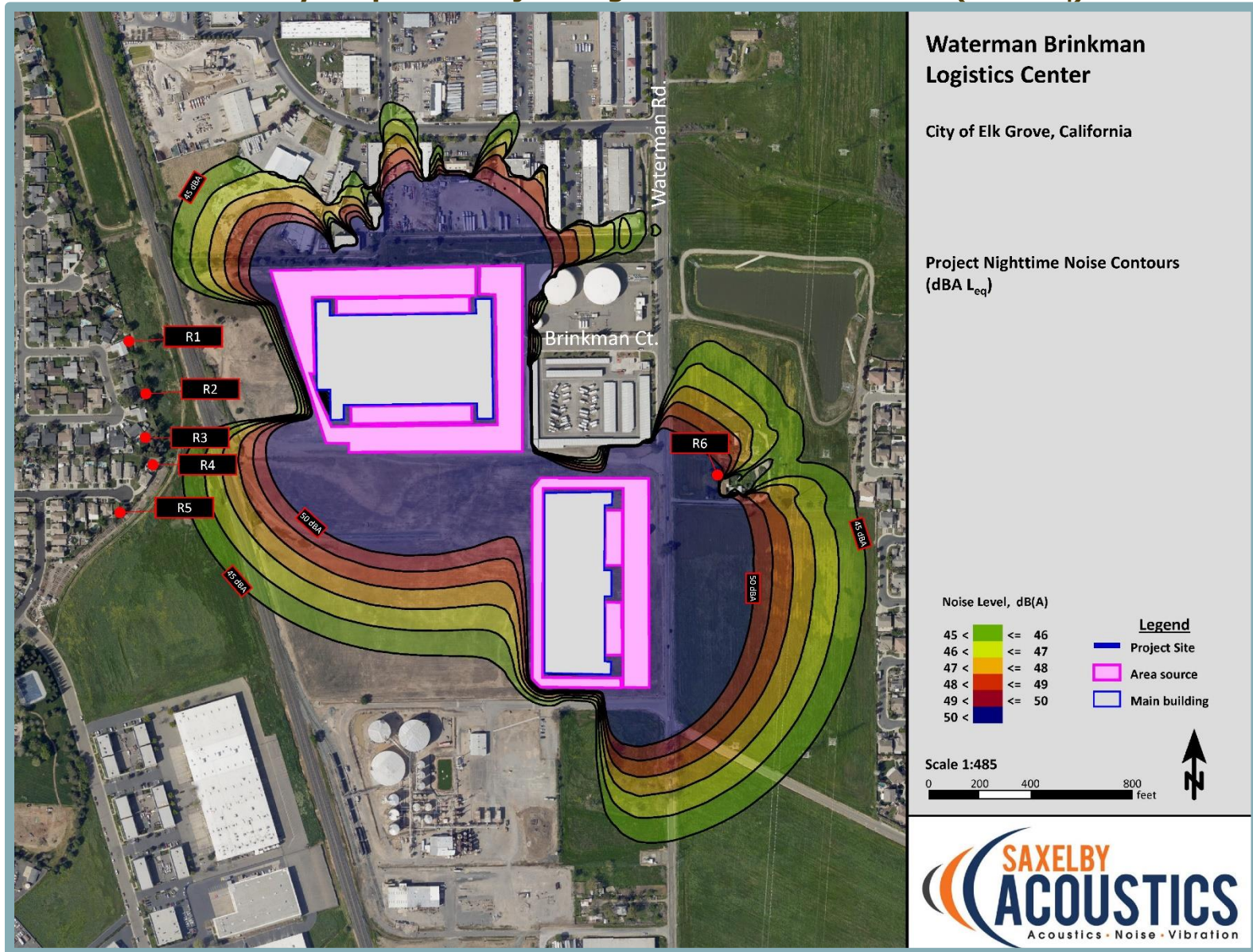
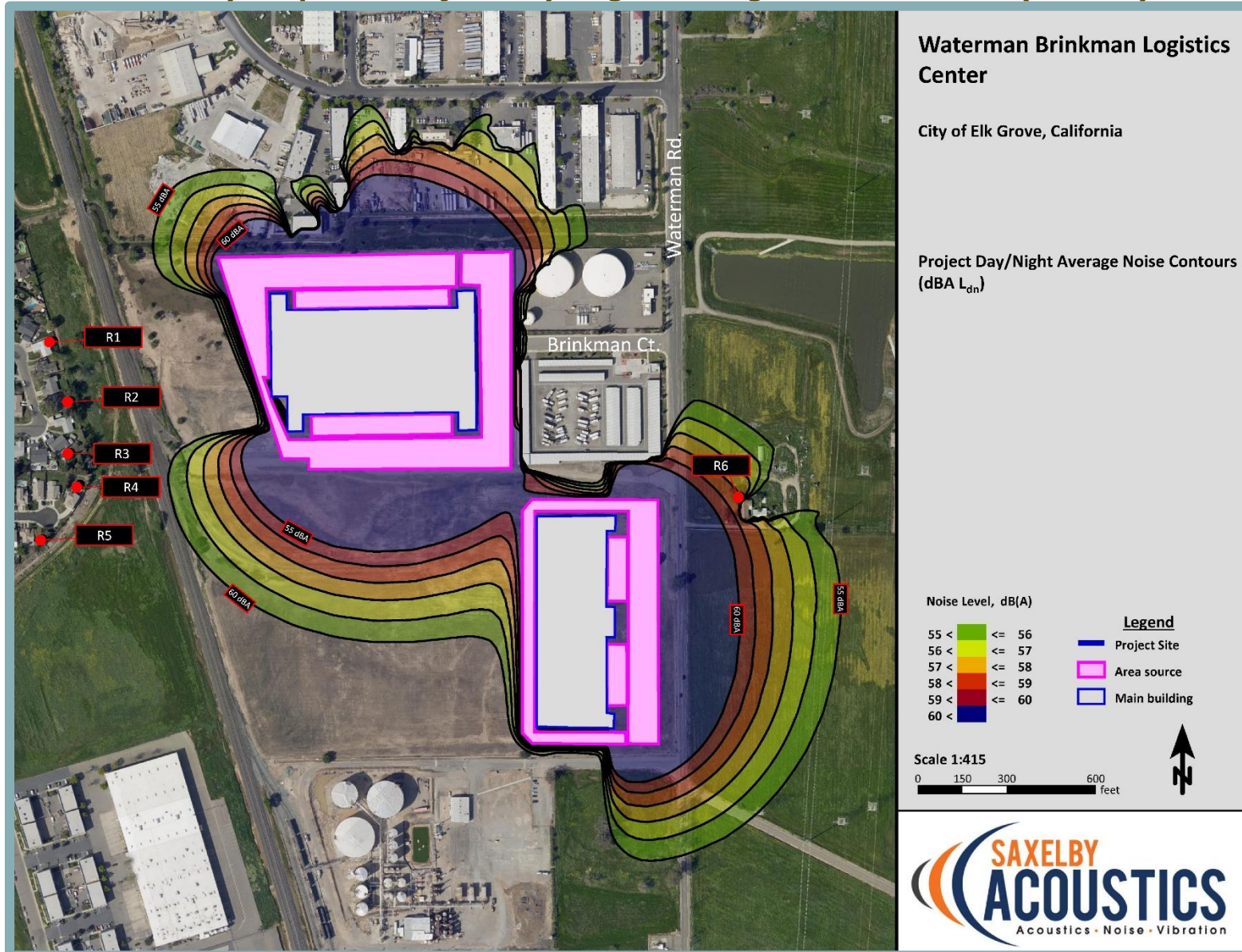


Figure 9
Currently Proposed Project Day/Night Average Noise Contours (dBA L_{dn})



**Table 8
Project-Only and Cumulative Noise Levels**

Receiver	Day dB(A) Leq		Day Ambient Adjusted Standard	Meets Standard?	Night dB(A) Leq		Night Ambient Adjusted Standard	Meets Standard?
	Project	Cumulative			Project	Cumulative		
1	43.1	52.1	60.0	Yes	37.8	45.2	60.0	Yes
2	43.5	52.3	60.0	Yes	38.3	46.0	60.0	Yes
3	47.5	53.4	60.0	Yes	42.4	48.2	60.0	Yes
4	48.7	52.8	60.0	Yes	43.6	48.0	60.0	Yes
5	47.4	51.7	60.0	Yes	42.4	46.9	60.0	Yes
6	55.5	57.8	60.0	Yes	50.5	52.6	55.0	Yes

Source: Saxelby Acoustics, 2024.

**Table 9
Predicted Noise Level Increases**

Receiver	Existing Ambient, dBA L _{dn}	Existing Plus Project, dBA L _{dn}	Change	Increase Standard	Meets Standard?	Cumulative Plus Project, dBA L _{dn}	Change	Standard	Meets Standard?
1	68.4	68.4	0.0	+1.5	Yes	68.5	0.1	+1.5	Yes
2	68.4	68.4	0.0	+1.5	Yes	68.6	0.2	+1.5	Yes
3	68.4	68.5	0.1	+1.5	Yes	68.6	0.2	+1.5	Yes
4	68.4	68.5	0.1	+1.5	Yes	68.6	0.2	+1.5	Yes
5	68.4	68.5	0.1	+1.5	Yes	68.6	0.2	+1.5	Yes
6	62.1	63.6	1.4	+3.0	Yes	64.3	2.1	+3.0	Yes

Source: Saxelby Acoustics, 2024.

Conclusion

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b. The 2022 IS/MND evaluated the potential for the project to generate excessive groundborne vibration or groundborne noise levels and concluded that the project would result in a less-than-significant impact. As detailed therein, construction activities generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment. The vibrations spread through the ground and diminish in amplitude with distance from the source. Based on typical vibration levels for construction equipment, construction vibration levels anticipated for the project would be less than the 0.2 inches per second threshold at distances of 50 feet. The nearest existing sensitive receptors are located approximately 200 feet away from the Site boundaries. Thus, the 2022 IS/MND concluded that a less-than-significant impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Given the proximity to the nearest receptor from the Site, vibration levels generated during Project construction are not anticipated to be above the acceptable threshold of 0.2 inches per second.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the generation of excessive groundborne vibration or groundborne noise levels beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- c. As discussed in the 2022 IS/MND, the nearest airport to the Site is the private use Mustang Airport, located approximately 4.9 miles southeast of the Site. Given the substantial distance between the airport and the Site, noise levels resulting from aircraft at the nearest airport would be negligible at the Site. The 2022 IS/MND concluded that because the Site is not located within two miles of a public airport or public use airport, the project would not expose people residing or working in the project area to excessive noise levels associated with such, and no impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Given that new airports have not been sited within two miles of the Site subsequent to the adoption of the 2022 IS/MND, consistent with the conclusions of the 2022 IS/MND, the Project would not expose people residing or working in the Project area to excessive noise levels related to aviation.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to being located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to noise. The previously required mitigation measures from the 2022 IS/MND, as presented below, would still be required to be implemented for the currently proposed Project.

Mitigation Measure(s)

The mitigation measures from the 2022 IS/MND applicable to the currently proposed Project are presented below.

Mitigation Measures from the Previous CEQA Documents

XIII-1. Prior to the approval of grading and/or building permits, the City shall establish the following requirements and note such requirements on improvement plans:

- *Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the daytime hours of 7 AM and 7 PM daily when located in close proximity to residential uses.*
- *Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.*
- *When not in use, motorized construction equipment shall not be left idling for more than 5 minutes.*
- *Stationary equipment (power generators, compressors, etc.) shall be located at the furthest practical distance from nearby noise-sensitive land uses or shielded to reduce noise-related impacts.*

The improvement plans shall be submitted to the City of Elk Grove Development Services Department for review and approval.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XIV. Population and Housing.				
<i>Would the Project:</i>				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Pg. 91	No	No	No
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Pg. 91	No	No	Yes

Discussion

a,b. The 2022 IS/MND assessed the potential for development of the project to induce substantial population growth and determined that a less-than-significant impact would occur, and no impact would occur related to the displacement of existing people or housing. As noted in the 2022 IS/MND, development of the project was not anticipated to include any residential development, and the project was not anticipated to directly induce population growth. While the project was anticipated to include the creation of new jobs, which could potentially result in an increase in the housing demand in the area, such an increase was determined to be minimal due to the relatively small scale of the project. In addition, given that the project is consistent with the Site’s current land use and zoning designations, potential growth associated with development of the Site has been anticipated by the City and analyzed in the City of Elk Grove General Plan EIR.

The currently proposed Project would involve the development of the same warehouse uses addressed in the 2022 IS/MND, and similarly would not include any residential development. While the currently proposed Project would increase the building area for Building B from 164,900 sf to 180,894 sf, the additional square footage would include additional warehouse space, and would not result in additional office space. The currently proposed Project would not be anticipated to result in additional employees beyond what was assumed in the 2022 IS/MND. As such, the currently proposed Project would not indirectly result in substantial unplanned population growth in the Project area.

Finally, the Site is currently undeveloped and does not include existing housing or other habitable structures. As such, the currently proposed Project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to population and housing beyond what were

previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to population and housing.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XV. Public Services. <i>Would the Project result in:</i>				
Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a. Fire protection?	Pgs. 92 and 93	No	No	No
b. Police protection?	Pg. 93	No	No	No
c. Schools?	Pg. 93	No	No	No
d. Parks?	Pg. 93	No	No	No
e. Other public facilities?	Pg. 93	No	No	No

Discussion

a. Fire protection services in the City of Elk Grove are provided by the Cosumnes Community Services District (CCSD).²⁹ Services include fire suppression, emergency medical services, technical rescue, and arson and explosion investigations. The CCSD has 206 personnel in its Operations Division and operates out of eight fire stations with nine advanced life support engine companies, one aerial ladder truck company, eight rescue ambulance units, and one command vehicle, as well as other specialized apparatus for specialized emergency circumstances; in 2023, the CCSD responded to 23,933 incidents, an increase from the prior four years.³⁰ The nearest fire station to the Site is Fire Station 71, located at 8760 Elk Grove Boulevard, approximately 1.4 miles west of the Site.

According to the 2022 IS/MND, upon completion of the project, the CCSD would provide fire protection services to the proposed industrial development. The General Plan EIR concluded that while buildout of the Planning Area, including the Site, would result in an increased demand for fire protection and emergency medical services, compliance with applicable regulations and General Plan policies would ensure that new fire station siting and resources are available and that required environmental review under CEQA would be conducted as specific fire protection facilities are proposed. As noted in the General Plan EIR, three new fire stations are currently planned within the City’s Planning Area: Station 77, to be located within the Laguna Ridge Specific Plan Area near Whitelock Parkway; Station 78, to be located within the South Pointe Land Use Policy Area near Kammerer Road; and Station 79, to be located within the Eastern Elk Grove

²⁹ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.11-1]. February 2019.

³⁰ Cosumnes Fire Department. *2023 Annual Report*. Available at: <https://www.cosumnescsd.gov/DocumentCenter/View/27704/2023-Calendar-Year-Cosumnes-Fire-Department-Summary-Infographic?bidId=>. Accessed December 2024.

Community Plan Area near Grant Line Road. Therefore, the 2022 IS/MND concluded that demand for fire protection facilities associated with the project could either be met by the existing Fire Station 71 or by future fire station facilities planned by the CCSD. The currently proposed Project would be consistent with the uses assumed for the Site in the 2022 IS/MND, and, therefore, would not increase demand for fire protection services beyond that assumed in the 2022 IS/MND.

In addition, the currently proposed Project would be subject to payment of a Fire Fee in accordance with Chapter 16.85 of the City's Municipal Code, which is used to pay for costs associated with development of new fire stations. Furthermore, the proposed buildings would be constructed in accordance with the fire protection requirements of the most recent California Fire Code. The CCSD would review the Project building plans to ensure compliance with all California Fire Code requirements.

Based on the above, the currently proposed Project would not result in new significant impact or substantially more significant impact related to fire protection beyond what were identified in the 2022 IS/MND.

- b. Police protection services within the City of Elk Grove are provided by the City of Elk Grove Police Department (EGPD). As noted in the General Plan EIR, the EGPD operates primarily out of two facilities located in the City Hall complex at 8380 and 8400 Laguna Palms Way. The service area is split into five police beats that are regularly patrolled. As of 2023, the EGPD has an authorized strength of 150 sworn officers and 107 civilian personnel and responded to 90,045 calls for service in 2023, and 85,055 calls for service in 2022.³¹ In addition to the EGPD, the California Highway Patrol provides traffic regulation enforcement, emergency accident management, and service and assistance on State roadways, as well as traffic regulation enforcement throughout the State (including in the City), from its station located at 6 Massie Court, near the interchange of Mack Road and SR 99.

According to the 2022 IS/MND, considering the project is consistent with the land use designation for the Site, buildout of the Site with an industrial land use was already considered in the General Plan EIR. The General Plan EIR concluded that while buildout of the Planning Area, including the Site, would result in an increased demand for law enforcement services, resulting in new patrols, identified growth areas within the City will be adequately served by the EGPD's existing facilities, and construction of new facilities is not likely to be required. Furthermore, new staff and equipment necessary to provide law enforcement services to new development would be funded by the City's Capital Facilities Fee levied on new development, as well as ongoing payments of property taxes. Payment of the Capital Facilities Fee would be required per Chapter 16.95 of the Municipal Code.

The currently proposed Project would be consistent with the uses assumed for the Site in the 2022 IS/MND, and, therefore, would not increase demand for police protection services beyond that assumed in the 2022 IS/MND. In addition, the currently proposed Project would be subject to the City's Public Facilities Impact Fee, as set forth by Elk Grove Municipal Code Section 16.95.020, which would ensure that the Project pays a fair-share funding contribution for the provision of law enforcement services. Furthermore, the relevant CEQA threshold is whether new or physically altered stations are needed to meet response times or other performance objectives, the construction of which could cause environmental impacts. Should the City determine the increase in population generated by the currently proposed Project necessitates the need for new

³¹ Elk Grove Police Department. *Elk Grove Police Department Annual Report 2023*. Available at: <https://storymaps.arcgis.com/stories/135bec7883db42e0b598b24ae6ae3ee7>. Accessed December 2024.

Elk Grove Police Department facilities, such structures would be built in accordance with applicable standards and regulations, ensuring that potential environmental effects do not occur.

Based on the above, the currently proposed Project would not result in new significant impact or substantially more significant impact related to police protection beyond what were identified in the 2022 IS/MND.

- c-e. According to the 2022 IS/MND, the project was not anticipated to include any residential development and, thus, would not result in population growth such that demand for schools, parks, or other public facilities would increase substantially. As noted in the 2022 IS/MND, while the project could induce population growth through the increase in employment opportunities, any indirect increase in population growth associated with the project was anticipated to be accommodated by new residential development in the region, which would undergo separate project-specific CEQA review and address impacts related to school, parks, and other public facilities therein. In addition, because the project is consistent with the land use designation for the Site, development of the Site with industrial uses has already been considered by the City and evaluated in the General Plan EIR. Implementation of the project was not determined to result in any additional impacts related to schools, parks, or other public facilities beyond what was anticipated in the General Plan EIR.

The currently proposed Project would be consistent with the uses assumed for the Site in the 2022 IS/MND, and, therefore, would not increase demand for public services beyond that assumed in the 2022 IS/MND. Thus, the currently proposed Project similarly would not result in any additional impacts related to schools, parks, or other public facilities beyond what was anticipated in the General Plan EIR.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more significant impacts related to schools, parks, or other public facilities beyond what was identified in the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to public services.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XVI. Recreation.				
<i>Would the Project:</i>				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Pg. 94	No	No	No
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Pg. 94	No	No	No

Discussion

a,b. The 2022 IS/MND assessed the potential for development of the project to result in substantial physical deterioration of any existing neighborhood or regional parks or other recreational facilities, and determined that the project would not result in adverse physical effects related to the construction or expansion of new facilities, and a less-than-significant impact would occur. The project was anticipated to include the development of two warehouses on a site designated for industrial uses. As such, the project was not determined to result in population growth that could result in increased demand on existing recreational facilities or cause the construction or expansion of recreational facilities. Additionally, according to General Plan EIR Impact 5.11.4, buildout of the General Plan, which includes buildout of the Site, would result in less-than-significant impacts related to parks and other public facilities.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND, and would include development of similar industrial uses. Thus, the currently proposed Project would not result in increased demand on existing recreational facilities or cause the construction or expansion of recreational facilities, and the Project would be subject to the City of Elk Grove Laguna Ridge Park Fee, pursuant to Elk Grove Municipal Code Chapter 16.82.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated or the construction or expansion of recreational facilities which might have an adverse physical effect on the environment beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe impacts from what had been anticipated for the Site in the 2022 IS/MND related to recreation.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None required.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XVII. Transportation.				
<i>Would the Project:</i>				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Pgs. 95 to 97	No	No	No
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Pgs. 97 and 98	No	No	Yes
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Pgs. 98 and 99	No	No	No
d. Result in inadequate emergency access?	Pgs. 98 and 99	No	No	No

Discussion

- a. An updated VMT Analysis was prepared by Fehr & Peers to assess the potential impacts related to VMT associated with the currently proposed Project (see Appendix D).³² The currently proposed Project’s potential impacts related to VMT are discussed under question ‘b’ below.

The following discussions address potential conflicts with a program, plan, ordinance or policy addressing the circulation system, specifically as they relate to California Department of Transportation (Caltrans), transit, bicycle, and pedestrian facilities associated with the currently proposed Project as compared to the analysis included in the 2022 IS/MND.

Consistency with California Department of Transportation (Caltrans) Facilities

As discussed in the 2022 IS/MND, prior project analysis has identified that in the cumulative conditions, continued development in the City of Elk Grove and other portions of south Sacramento County will have impacts on State facilities. To address this, the I-5 Subregional Fee program was developed between the City of Elk Grove, the cities of Sacramento and West Sacramento, and Caltrans. Policy MOB-7-4 in the City General Plan requires development applications to pay this fee in order to fund the necessary improvements. Therefore, the 2022 IS/MND included Mitigation Measure XVII-1, which requires payment of the fee. The 2022 IS/MND conducted that with implementation of Mitigation Measure XVII-1, a less-than-significant impact would occur.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND, and would result in similar impacts upon State facilities. As such, the currently

³² Fehr & Peers. *Elk Grove Waterman Brinkman Logistics Center (PLNG20-016) – VMT Analysis*. July 15, 2024.

proposed Project would still be required to pay the I-5 Subregional Fee, and Mitigation Measure XVII-1 would remain applicable.

Consistency with City of Elk Grove General Plan Policies - Transit, Bicycle, and Pedestrian Facilities

Considering the proposed land use, extensive pedestrian and bicycle transportation is not anticipated. Nonetheless, pedestrian and bicycle facilities do exist in the Project vicinity.

As discussed in the 2022 IS/MND, a paved sidewalk currently extends along the western side of Waterman Road to the southern corner on the IN Self Storage facility. In addition, sidewalks are provided along both sides of Brinkman Court, and would connect to the proposed pedestrian infrastructure on Lot B. The project was anticipated to include establishment of a pedestrian trail along Elk Grove Creek, at the northern boundary of Lot A. The pedestrian trail is planned for future development in the City's Bicycle, Pedestrian, and Trails Master Plan.³³ As such, the 2022 IS/MND concluded that by implementing the planned pedestrian trail, the project would be consistent with and help execute the local plan addressing the circulation system. The currently proposed Project would still include the a pedestrian trail along Elk Grove Creek, and, therefore, would remain consistent with the City's Bicycle, Pedestrian, and Trails Master Plan.

The City of Elk Grove maintains three classes of bicycle facilities (Class I, Class II, and Class III). Pursuant to Figure 5.1, Existing and Proposed Bicycle and Pedestrian Network, of the City's Bicycle, Pedestrian, and Trails Master Plan, a Class II bike lane exists along the northern portion of Waterman Road, and connects to the citywide bicycle network. A future Class II bike lane is planned along the southern portion of Waterman Road. In addition, consistent with Municipal Code Section 23.58.100, the project was anticipated to include 11 bicycle parking spaces to support bicycle use. Therefore, the 2022 IS/MND concluded that impacts related to bicycle facilities would be less than significant. The currently proposed Project would not alter the site plan as to preclude development of the planned Class II bike lane along the southern portion of Waterman Road. In addition, the currently proposed Project would provide bicycle racks along the frontages of Building A and Building B.

Transit services in the City of Elk Grove are provided by E-tran, which is operated by Sacramento Regional Transit (SacRT). In addition, the Site is served by SacRT's SmarT Ride Microtransit, which is an on demand smart ride service.

Because the project was determined to be consistent with the land use designation for the Site, the 2022 IS/MND concluded that development of the Site with industrial uses has already been considered by the City and evaluated in the General Plan EIR. General Plan Policies MOB-5-6 and MOB-5-7 encourage the provision of the appropriate level of transit service in all areas of the City and the extension of bus rapid transit and/or light rail service (referred to as "fixed transit") to existing and planned employment centers. Accordingly, General Plan EIR Impact 5.13.7 concludes that buildout of the General Plan, which includes buildout of the Site, would result in less-than-significant impacts related to transit facilities. Therefore, the 2022 IS/MND concluded that implementation of the project would result in a less-than-significant impact related to transit service and facilities. The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND, and would include similar industrial uses. As such the currently proposed Project would similarly result in a less-than-significant impact related to transit facilities.

³³ City of Elk Grove. *Bicycle, Pedestrian, and Trails Master Plan*. May 2021.

Conclusion

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to conflicts with a program, plan, ordinance or policy addressing the circulation system, specifically as they relate to Caltrans, transit, bicycle, and pedestrian facilities, beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel.

Pursuant to General Plan Policy MOB-1-1, new development projects are required to demonstrate a 15 percent reduction in VMT from 2015 conditions. To demonstrate this reduction, conformance with following land use and cumulative VMT limits is required:

1. Development projects shall demonstrate that the VMT produced by the project at buildout is equal to or less than the VMT limit of the project's General Plan land use designation, as shown in Table 6-1 of the General Plan, which incorporates the 15 percent reduction from 2015 conditions; and
2. Development projects located within the existing City limits shall demonstrate that cumulative VMT within the City, including the project, would be equal to or less than the established Citywide limit of 6,367,833 VMT (total daily VMT).

Figure 5.13-14 of the General Plan EIR presents anticipated VMT per service population per traffic analysis zone at buildout in the year 2036. Areas identified in white have been determined to result in an average service population VMT 15 percent below the City's existing baseline limit and would satisfy the thresholds presented in General Plan Policy MOB-1-1, if new development is built to the specifications consistent with the General Plan Land Use Diagram.

As discussed in the 2022 IS/MND, the project was determined to be consistent with the General Plan land use designation for the Site, and, pursuant to Figure 5.13-14 of the General Plan EIR, the Site is located in an area determined to result in an average service population VMT 15 percent below the City's existing baseline limit. As such, the 2022 IS/MND concluded that development on the Site pursuant to the land use designation is anticipated to result in a less-than-significant VMT impact. Furthermore, the VMT threshold is focused on employee trips from single-passenger vehicles, as opposed to heavy truck trips.

Typically, further analysis is not required for projects located in a pre-screened area that are consistent with the General Plan land use designation. However, an additional updated analysis was prepared by Fehr & Peers for the currently proposed Project to confirm that the currently proposed Project satisfies the 20 percent reduction in VMT for GHG analysis purposes, consistent with the requirements of the City's CAP. A modified version of SACOG's SACSIM15 regional travel demand forecasting model, the EGSIM20 Travel Demand Model, developed for the analysis of the City of Elk Grove General Plan Update, was used to calculate the VMT per service population for the parcels that represent the currently proposed Project. Based on the updated model, the currently proposed Project's VMT per service population was calculated to be 19.2, which is 27.4 percent lower than the City's VMT limit for the heavy industrial land use. As discussed in the 2022 IS/MND, the previously calculated VMT per service population was 31.4, which is 20.5 percent lower than the City's VMT limit for the heavy industrial land use. Therefore,

based on the City's updated model, VMT associated with development of the Site with heavy industrial uses would be reduced under the currently proposed Project as compared to what was assumed in the 2022 IS/MND.

Based on the above, the currently proposed Project would not exceed the citywide cumulative VMT limit that is outlined in Elk Grove General Plan Policy MOB-1-1(a)(ii). Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- c,d. The 2022 IS/MND concluded that the project would not alter the existing transportation network nor increase hazards due to a geometrical design feature. As noted therein, the proposed buildings would be sufficiently set back from Waterman Road such that visibility for motorists would not be hindered. In addition, the frontage improvements provided along Waterman Road would be designed to accommodate heavy truck traffic. In addition, during project construction, public roads in the vicinity would remain open and available for use by emergency vehicles and other traffic. The new internal roadway would provide two points of access to the Site, which would be adequate for emergency vehicle access.

As discussed in the 2022 IS/MND, implementation of the project would introduce additional truck traffic along Waterman Road. However, as noted in the General Plan EIR, buildout of the General Plan would result in less-than-significant impacts related to hazards and emergency access (see Impacts 5.13.5 and 5.13.6). Considering the currently proposed Project would be consistent with the General Plan land use designation for the Site, impacts related to hazards and emergency access associated with the Project were already analyzed and anticipated in the General Plan EIR. In addition, the General Plan EIR noted that any new transportation facility improvements required as part of General Plan buildout would be constructed based on industry design standards consistent with Policy MOB-3-10, which stresses that the safety of the most vulnerable user is a priority.

A Left Turn Assessment was conducted for the currently proposed Project to determine if a northbound left turn lane on Waterman Road would be needed to provide access to the Site on the west side of Waterman Road, south of Brinkman Court (see Appendix E).³⁴ As concluded therein, the north and south driveways would have approximately 10 left-turn trips into the Site per hour, which would be below the 25 vehicles per hour threshold necessitating dedicated left turn lanes; therefore, the currently proposed Project would not be required to provide left turn lanes at the driveways, and the currently proposed Project would not result in hazards due to a geometric design feature.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to substantially increasing hazards due to a geometric design feature or incompatible uses, or resulting in inadequate emergency access, beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe impacts from what had been anticipated for the Site in the 2022 IS/MND related to transportation. The previously

³⁴ Flecker Associates. *Left Turn Assessment – Waterman Road at Brinkman Ct Logistics Center, Elk Grove, California*. July 17, 2024.

required mitigation measures from the 2022 IS/MND, as presented below, would still be required to be implemented for the currently proposed Project.

Mitigation Measure(s)

The mitigation measures from the 2022 IS/MND applicable to the currently proposed Project are presented below.

Mitigation Measures from the Previous CEQA Documents

XVII-1. *Prior to issuance of building permits, the Project applicant shall pay the applicable I-5 Subregional Fee in effect at the time of payment, consistent with Sections 16.97.040 and 16.97.050 of the City's Municipal Code. Receipt of payment shall be provided to the City of Elk Grove Planning Division.*

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XVIII. Tribal Cultural Resources.				
<i>Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:</i>				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	Pgs. 100 and 101	No	No	No
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Pgs. 100 and 101	No	No	No

Discussion

a,b. As previously discussed in Section V, Cultural Resources, of this Addendum, the Wilton Rancheria initiated consultation under AB 52, and requested to complete a pedestrian survey of the Site. The pedestrian survey was completed, the Wilton Rancheria approved the cultural and tribal cultural resources mitigation measures included in the 2022 IS/MND, and further consultation was not required. Requests to consult were not received from any other contacted tribes.

As previously discussed, the Site does not contain known historical or archaeological resources. Nevertheless, the possibility exists that previously unknown cultural resources could be uncovered during grading or other ground-disturbing activities. Thus, the currently proposed Project would be subject to 2022 IS/MND Mitigation Measures V-1 and V-2, which require avoidance and preservation measures for potential resources inadvertently discovered during construction activities, and 2022 IS/MND V-3, which requires worker environmental training for archaeological and Tribal Cultural Resource awareness. Therefore, through implementation of Mitigation Measures V-1 through V-2, the currently proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource during ground-disturbing activities.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. Therefore, the currently proposed Project would not result in new significant impacts related to potential impacts to tribal cultural resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1 or a resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1, and a less-than-significant impact would occur.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to tribal cultural resources. The previously required mitigation measures from the 2022 IS/MND, as presented below, would still be required to be implemented for the currently proposed Project.

Mitigation Measure(s)

The mitigation measures from the 2022 IS/MND applicable to the currently proposed Project are presented below.

Mitigation Measures from the Previous CEQA Documents

XVIII-1. Implement Mitigation Measures V-1, V-2, and V-3.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XIX. Utilities and Service Systems.				
<i>Would the Project:</i>				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Pgs. 102 to 104	No	No	No
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Pgs. 104 and 105	No	No	No
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Pgs. 102 to 104	No	No	No
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Pgs. 105 and 106	No	No	No
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Pgs. 105 and 106	No	No	No

Discussion

a,c. The 2022 IS/MND evaluated the potential for the project to require or result in the relocation or construction of new or expanded utilities and service systems facilities. Specific discussions of each utility service, potential impacts associated with each service identified in the 2022 IS/MND, and the potential impacts that would result from the currently proposed Project are discussed further below.

Water Supply Infrastructure

As discussed in the 2022 IS/MND, water supply to the project would be provided by the EGWD. On Lot A, a new 12-inch water line was anticipated to connect to the existing infrastructure in Brinkman Court. On Lot B, a new 12-inch water line was anticipated to connect to the existing eight-inch water main in Waterman Road. In addition, as part of the project, a new 16-inch water main was anticipated to bisect the Site and connect to an existing 16-inch butterfly valve in the EGWD main that flows under the UPRR tracks. Given that the project was anticipated to connect to existing water supply lines located in the project vicinity, the 2022 IS/MND determined that construction of substantial off-site water supply infrastructure would not be required. In addition, given that the project was determined to be consistent with the Site's current General Plan land use designations, the 2022 IS/MND determined that construction of on-site water supply improvements has been previously anticipated by the City and analyzed in the General Plan EIR. Therefore, the 2022 IS/MND concluded that a less-than-significant impact would occur related to construction of new or expanded water supply facilities.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. While the currently proposed Project would increase the area for Building B from 164,900 sf to 180,894 sf, the currently proposed Project would not change the design of water infrastructure improvements from what was originally discussed in the 2022 IS/MND. Therefore, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Wastewater Infrastructure and Treatment

Sewer service for the Project would be provided by SacSewer. SacSewer owns, operates, and maintains a network of 107 pump stations and approximately 80 miles of pressurized force main pipes.³⁵ SacSewer trunk sewer pipes function as conveyance facilities to transport the collected wastewater flows to the SacSewer interceptor system. The existing City trunk line extends south on West Stockton Boulevard, then west to another trunk line within Laguna Boulevard, and finally to the N39 Laguna Interceptor that goes to the EchoWater Resource Recovery Facility.

As discussed in the 2022 IS/MND, the EchoWater Resource Recovery Facility treats an average of 181 million gallons per day (mgd). Wastewater is treated by accelerated physical and natural biological processes before discharge to the Sacramento River. The EchoWater Resource Recovery Facility's reliable capacity is currently limited, based on hydraulic considerations, to an equivalent 207 mgd average dry weather flow (ADWF). The EchoWater Resource Recovery Facility has been master planned to accommodate 350 mgd ADWF following planned improvements. In addition, SacSewer has prepared a long-range master plan for the large-diameter interceptors that transport wastewater to the EchoWater Resource Recovery Facility. The master plan includes interceptor upgrades/expansions to accommodate anticipated growth through 2035.³⁶

Pursuant to the EchoWater Resource Recovery Facility's NPDES Permit (No. CA0077682), adopted in April of 2016, the ADWF at that time was approximately 120 mgd.³⁷ As such, the

³⁵ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.12-26]. February 2019.

³⁶ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.12-27]. February 2019.

³⁷ California Regional Water Quality Control Board, Central Valley Region. *Order No. R5-2016-0020-01 NPDES No. CA0077682* [pg I-7]. April 2016.

EchoWater Resource Recovery Facility was operating at approximately 63 percent of permitted capacity. According to the 2022 IS/MND, based on data from similar warehouse projects, the project was determined to generate approximately 0.038 mgd of wastewater. Therefore, the 2022 IS/MND concluded that adequate capacity exists to treat the additional 0.038 mgd of wastewater that would be generated by the project.

Furthermore, the 2022 IS/MND determined that the project applicant would be required to pay sewer impact fees to the sewer district, which would contribute towards the cost of future upgrades of the EchoWater Resource Recovery Facility. Required payment of sewer impact fees would ensure that the EchoWater Resource Recovery Facility receives adequate funding for necessary future improvements.

The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND. While the currently proposed Project would increase the area for Building B from 164,900 sf to 180,894 sf, the currently proposed Project would not result in increased wastewater generation from what was determined in the 2022 IS/MND. The currently proposed Project would include connection to the existing 10-inch sewer pipe that runs along the eastern Site border. On Lot A, a new six-inch sewer line would connect to the existing infrastructure in Brinkman Court. On Lot B, a new eight-inch sewer line would connect to the existing sewer trunk line in Waterman Road. In addition, the Project applicant would be required to pay sewer impact fees to the sewer district, which would contribute towards the cost of future upgrades of the EchoWater Resource Recovery Facility.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the relocation or construction of new or expanded sewer facilities, the construction or relocation of which could cause significant environmental effects, or result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Stormwater Drainage Facilities

The 2022 IS/MND's analysis of potential impacts associated with the project to stormwater drainage facilities and impacts that would result from the currently proposed Project are discussed in Section X, Hydrology and Water Quality, of this Addendum.

Electricity, Natural Gas, and Telecommunications Facilities

As discussed in the 2022 IS/MND, the Site is located within a developed area of the City of Elk Grove and is situated within close proximity to existing electric power, natural gas, and telecommunications facilities. Because the project was determined to be consistent with the land use designation for the Site, buildout of the Site with industrial/warehouse uses was anticipated by the City and accounted for in utility planning. The 2022 IS/MND concluded that implementation of the project would implement the development that has been planned for the Site, substantial expansion of off-site utilities would not be required to serve the proposed development, and associated environmental effects would not occur.

With respect to the currently proposed Project, electricity would be provided by SMUD through new infrastructure installed underground, in accordance with Elk Grove Municipal Code Section 23.63.020. In addition, natural gas would be provided to the Project by Pacific Gas and Electric

(PG&E). All new connections to existing infrastructure within the Project vicinity would be installed underground. The same general telecommunication infrastructure would be required for the currently proposed Project; thus, the 2022 IS/MND conclusion remains applicable to the currently proposed Project.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the relocation or construction of new or expanded gas, electricity, and/or telecommunications facilities, the construction or relocation of which could cause significant environmental effects beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Conclusion

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to requiring or resulting in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- b. Pursuant to the General Plan EIR, the City of Elk Grove is served by three water service providers: the Sacramento County Water Agency (SCWA); the EGWD; and the Omochumne-Hartnell Water District.³⁸ As noted above, the currently proposed Project would be served by the EGWD. The District is separated into two service areas: Service Area 1 and Service Area 2. Service Area 1 is supplied by groundwater wells and treated by the District's water treatment plant. Service Area 2 is supplied by surface water and groundwater purchased from SCWA. The Site is located within Service Area 1.

As discussed in the 2022 IS/MND, development of the project was anticipated to result in increased demand for water supplies relative to existing conditions. Based on conservative water demand estimates for similar project types, the project was anticipated to generate 233,000 gallons per day, or 261 AFY). Even after multiple dry years, water demand associated with the project was determined to constitute less than four percent of the EGWD's projected water supply. Furthermore, considering the project is consistent with the General Plan land use designation, the 2022 IS/MND determined that water demand associated with buildout of the Site with industrial uses was included in the projected water demand totals included in the EGWD 2015 UWMP. As such, implementation of the project was already accounted for in EGWD's planning efforts. Therefore, EGWD's projected water supplies were determined to be sufficient to satisfy water demands associated with the project while still meeting the current and projected water demands of existing customers within the service area. The 2022 IS/MND concluded that sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and a less-than-significant impact would occur.

Since preparation of the 2022 IS/MND, the EGWD adopted the 2020 UWMP, as required by the Urban Water Management Planning Act of 1983. The UWMP serves as a long-term planning document for sustainable water supply, and includes a description of water sources, historical and projected water use, and a comparison of water supply and demand during normal and dry

³⁸ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.12-1]. February 2019.

years. The UWMP has identified regional water demand in normal, single dry, and multiple dry years in five-year increments. Water demand projections were based on projected population estimates derived using various SACOG reports and the City's General Plan.³⁹ Based on the EGWD 2020 UWMP, EGWD will have sufficient supplies to meet demands through 2045 under average year, single dry year, and five consecutive dry year conditions. Considering the currently proposed Project is consistent with the General Plan land use designation, water demand associated with buildout of the Site with industrial uses was included in the projected water demand totals included in the 2020 UWMP. While the currently proposed Project would increase the area for Building B from 164,900 sf to 180,894 sf, the currently proposed Project would not be anticipated to generate substantial additional water demand beyond what was assumed in the 2022 IS/MND.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

- d,e. Republic Services provides solid waste collection, disposal, recycling, and yard waste services to residential development within the City of Elk Grove. As noted in the General Plan EIR, the City is served by a total of ten landfills, the majority of which have over 70 percent available remaining capacity.⁴⁰

As discussed in the 2022 IS/MND, due to the substantial amount of available capacity remaining at the landfills serving the City, sufficient capacity was determined to be available to accommodate the project's solid waste disposal needs. In addition, the project would be required to comply with all applicable solid waste regulations, including Title 30, Solid Waste Management, of the City's Municipal Code, as well as Chapter 30.90, the City's Space Allocation and Enclosure Design Guidelines for Trash and Recycling. Furthermore, given that the project was determined to be consistent with the Site's current General Plan land use designations, solid waste generation associated with the Project has been anticipated by the City and accounted for in regional planning efforts. Therefore, the 2022 IS/MND concluded that a less-than-significant impact related to solid waste would occur as a result of the project.

The currently proposed Project would not be anticipated to generate solid waste in excess of what was determined in the 2022 IS/MND. As such, sufficient capacity exists at the landfill to accommodate waste generated by the currently proposed Project. In addition, the Project would similarly be required to comply with all applicable solid waste regulations, including Title 30, Solid Waste Management, of the Elk Grove Municipal Code, as well as Chapter 30.90, the City's Space Allocation and Enclosure Design Guidelines for Trash and Recycling. Chapter 30.90 requires applicants to develop and submit an integrated waste management plan as part of the land use permit process. The plan must demonstrate steps the applicant would take to meet the State mandate to reduce or divert 65 percent of the waste generated by all residences and businesses in the City. Therefore, the currently proposed Project would comply with applicable federal, State, and local management and reduction statutes and regulations related to solid waste.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to the generation of solid waste in excess of

³⁹ Elk Grove Water District. *2020 Urban Water Management Plan*. Adopted June 15, 2021.

⁴⁰ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.12-32]. February 2019.

State or local standards, or in excess of the capacity of local infrastructure; the impairment or attainment of solid waste reduction goals; or compliance with federal, State, and local management and reduction statutes and regulations related to solid waste beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to utilities and service systems.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

Environmental Issue Area	Where Impact Was Analyzed in Previous CEQA Documents?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
XX. Wildfire.				
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:</i>				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	Pg. 107	No	No	No
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Pg. 107	No	No	No
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Pg. 107	No	No	No
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Pg. 107	No	No	No

Discussion

a-d. As discussed in the 2022 IS/MND, according to the California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program, the Site is not located within or near a Very High Fire Hazard Severity Zone or State Responsibility Area.⁴¹ As such, the 2022 IS/MND concluded that the project would not be expected to be subject to or result in substantial adverse effects related to wildfires, and no impact would occur.

Pursuant to Appendix G of the CEQA Guidelines, the determination of significant impacts related to wildfire is only relevant if a project would be located in or near a State Responsibility Area or lands classified as Very High FHSZs. The currently proposed Project would be developed within the footprint previously analyzed by the 2022 IS/MND, and, therefore, would not be located within or near a Very High Fire Hazard Severity Zone or State Responsibility Area. Furthermore, all structures constructed as part of the currently proposed Project would be built in accordance with

⁴¹ California Department of Forestry and Fire Protection. *Sacramento County, Very High Fire Hazard Severity Zones in LRA, As Recommended by CAL FIRE*. July 30, 2008.

the provisions set forth by the California Fire Code, as adopted by Elk Grove Municipal Code Section 17.04.010, which includes requirements, for automatic sprinkler systems in new buildings.

Based on the above, the currently proposed Project would not result in new significant impacts or substantially more severe significant impacts related to exposing people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands beyond what were previously identified in the 2022 IS/MND. Therefore, the currently proposed Project is consistent with the conclusions of the 2022 IS/MND.

Overall Conclusion

Based on the above, the currently proposed Project would not result in any changes, new circumstances, or new information that would involve new significant impacts or substantially more severe significant impacts from what had been anticipated for the Site in the 2022 IS/MND related to wildfire.

Mitigation Measure(s)

None required.

Mitigation Measures from the Previous CEQA Documents

None.

Modified Mitigation Measures

None required.

Additional Project-Specific Mitigation Measures

None required.

F. SOURCES

The following documents are referenced information sources used for the purposes of this Addendum:

1. Bole & Associates Environmental Consultants. *Phase I Environmental Site Assessment, APNs 134-011-084/-085, 9195 Brinkman Court, Elk Grove, Sacramento County, CA 95624*. March 3, 2020.
2. Brusca Associates, Inc. *Phase I Environmental Site Assessment, Waterman Road Property, APN 134-0181-041, Waterman Road, Elk Grove, Sacramento County, California*. October 23, 2019.
3. CalEPA. *Cortese List Data Resources*. Available at: <https://calepa.ca.gov/sitecleanup/corteselist/>. Accessed November 2024.
4. California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed November 2024.
5. California Department of Forestry and Fire Protection. *Sacramento County, Very High Fire Hazard Severity Zones in LRA, As Recommended by CAL FIRE*. July 30, 2008.
6. California Department of Transportation. *California State Scenic Highway System Map*. Available at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed November 2024.
7. California Energy Commission. *2022 Building Energy Efficiency Standards Summary*. Available at: <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>. Accessed November 2024.
8. California Regional Water Quality Control Board, Central Valley Region. *Order No. R5-2016-0020-01 NPDES No. CA0077682 [pg I-7]*. April 2016.
9. City of Elk Grove. *Bicycle, Pedestrian, and Trails Master Plan*. May 2021.
10. City of Elk Grove. *Draft Environmental Impact Report for the Grant Line Construction Aggregate Production and Recycling Facility Project State Clearinghouse Number 2022010079*. January 2023.
11. City of Elk Grove. *General Plan*. February 2019.
12. City of Elk Grove. *General Plan Update Draft Environmental Impact Report*. February 2019.
13. City of Elk Grove. *Municipal Code, Section 62.32.100*. Current through May 8, 2019.
14. Cosumnes Fire Department. *2023 Annual Report*. Available at: <https://www.cosumnescsd.gov/DocumentCenter/View/27704/2023-Calendar-Year-Cosumnes-Fire-Department-Summary-Infographic?bidId=>. Accessed December 2024.
15. Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese)*. Available at: <https://www.envirostor.dtsc.ca.gov/public/>. Accessed November 2024.
16. Elk Grove Police Department. *Elk Grove Police Department Annual Report 2023*. Available at: <https://storymaps.arcgis.com/stories/135bec7883db42e0b598b24ae6ae3ee7>. Accessed December 2024.
17. Elk Grove Water District. *2020 Urban Water Management Plan*. Adopted June 15, 2021.
18. Fehr & Peers. *Elk Grove Waterman Brinkman Logistics Center (PLNG20-016) – VMT Analysis*. July 15, 2024.
19. Flecker Associates. *Left Turn Assessment – Waterman Road at Brinkman Ct Logistics Center, Elk Grove, California*. July 17, 2024.
20. HELIX Environmental Planning. *Waterman Road (10-Acre) Biological Resources Assessment*. February 2020.

*Waterman Brinkman Logistics Center Amendment
Administrative Addendum to the Waterman Brinkman Logistics Center Project*

21. HELIX Environmental Planning. *Waterman Road (20.5-Acre) Biological Resources Assessment*. April 2021.
22. Native American Heritage Commission. *Native American Consultation, Pursuant to Senate Bill 18, Government Code §65352.3 and §65352.4, as well as Assembly Bill 52 (AB52), Public Resources Codes §21080.1, §21080.3.1 and §21080.3.2, Waterman Brinkman Logistics Center PLNG20-016, Sacramento County*. October 20, 2020.
23. Office of Environmental Health Hazard Assessment. *Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments* [pg. 8-18]. February 2015.
24. Raney Geotechnical Inc. *Geotechnical Investigation Brinkman and Waterman Development*. June 10, 2016.
25. Sacramento County. *Sacramento County Multi-Jurisdictional Local Hazard Mitigation Plan Update*. September 2021.
26. Sacramento Metropolitan Air Quality Management District. *Climate Action Planning in the Sacramento Metropolitan Air Quality Management District*. November 2017.
27. Saxelby Acoustics. *Noise Addendum for the Waterman Brinkman Noise Analysis – City of Elk Grove, California*. January 10, 2025.
28. State Water Resources Control Board. *GeoTracker*. Available at: <https://geotracker.waterboards.ca.gov/map/?myaddress=California&from=header&cqid=8858350455>. Accessed November 2024.
29. U.S. Environmental Protection Agency. *User's Guide for the AMS/EPA Regulatory Model (AERMOD)*. December 2016.
30. U.S. Fish and Wildlife Service. *National Wetlands Inventory Wetlands Mapper*. Available at: <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>. Accessed May 2023.
31. Watermark Engineering, Inc. *Waterman and Brinkman Logistics Center Drainage Report*. Updated July 16, 2024.

APPENDIX A

AIR QUALITY AND GHG MODELING RESULTS

Waterman Brinkman Logistics Center v2 Custom Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
 - 2.6. Operations Emissions by Sector, Mitigated
- 4. Operations Emissions Details
 - 4.1. Mobile Emissions by Land Use
 - 4.1.1. Unmitigated
 - 4.1.2. Mitigated
 - 4.2. Energy
 - 4.2.1. Electricity Emissions By Land Use - Unmitigated
 - 4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Waterman Brinkman Logistics Center v2
Operational Year	2026
Lead Agency	City of Elk Grove
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	36.6
Location	38.39434848066776, -121.3563512052539
County	Sacramento
City	Elk Grove
Air District	Sacramento Metropolitan AQMD
Air Basin	Sacramento Valley
TAZ	737
EDFZ	13
Electric Utility	Sacramento Municipal Utility District
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	444	1000sqft	23.0	444,441	80,970	—	—	—
Parking Lot	595	Space	5.35	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-7	Adopt a Water Conservation Strategy

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18.4	17.6	9.23	60.4	0.09	0.38	6.01	6.38	0.34	1.53	1.87	445	12,313	12,758	23.8	0.80	25.3	13,618
Mit.	18.4	17.6	9.23	60.4	0.09	0.38	6.01	6.38	0.34	1.53	1.87	401	12,270	12,671	23.7	0.71	25.3	13,499
% Reduced	—	—	—	—	—	—	—	—	—	—	—	10%	< 0.5%	1%	1%	12%	—	1%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	14.6	14.1	9.64	35.8	0.08	0.34	6.01	6.35	0.32	1.53	1.84	445	11,602	12,047	23.8	0.83	0.66	12,891
Mit.	14.6	14.1	9.64	35.8	0.08	0.34	6.01	6.35	0.32	1.53	1.84	401	11,559	11,960	23.7	0.74	0.66	12,772
% Reduced	—	—	—	—	—	—	—	—	—	—	—	10%	< 0.5%	1%	1%	12%	—	1%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	16.7	16.1	7.95	46.3	0.08	0.29	5.87	6.16	0.27	1.49	1.76	445	11,436	11,881	23.8	0.82	10.9	12,730
Mit.	16.7	16.1	7.95	46.3	0.08	0.29	5.87	6.16	0.27	1.49	1.76	401	11,393	11,794	23.7	0.72	10.9	12,611
% Reduced	—	—	—	—	—	—	—	—	—	—	—	10%	< 0.5%	1%	1%	12%	—	1%

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.05	2.94	1.45	8.46	0.01	0.05	1.07	1.12	0.05	0.27	0.32	73.6	1,893	1,967	3.94	0.14	1.81	2,108
Mit.	3.05	2.94	1.45	8.46	0.01	0.05	1.07	1.12	0.05	0.27	0.32	66.4	1,886	1,953	3.92	0.12	1.81	2,088
% Reduced	—	—	—	—	—	—	—	—	—	—	—	10%	< 0.5%	1%	1%	12%	—	1%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.80	3.48	3.26	32.4	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	7,307	7,307	0.30	0.29	25.3	7,427
Area	13.8	13.6	0.16	19.3	< 0.005	0.03	—	0.03	0.03	—	0.03	—	79.5	79.5	< 0.005	< 0.005	—	79.8
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	3,493	3,493	0.18	0.02	—	3,503
Water	—	—	—	—	—	—	—	—	—	—	—	220	214	433	0.76	0.48	—	596
Waste	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Off-Road	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Total	18.4	17.6	9.23	60.4	0.09	0.38	6.01	6.38	0.34	1.53	1.87	445	12,313	12,758	23.8	0.80	25.3	13,618
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.46	3.13	3.83	27.2	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	6,675	6,675	0.34	0.32	0.66	6,780
Area	10.4	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	3,493	3,493	0.18	0.02	—	3,503
Water	—	—	—	—	—	—	—	—	—	—	—	220	214	433	0.76	0.48	—	596
Waste	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Off-Road	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224

Total	14.6	14.1	9.64	35.8	0.08	0.34	6.01	6.35	0.32	1.53	1.84	445	11,602	12,047	23.8	0.83	0.66	12,891
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.46	3.14	3.58	26.9	0.07	0.05	5.87	5.92	0.05	1.49	1.54	—	6,806	6,806	0.32	0.31	10.9	6,916
Area	12.7	12.6	0.11	13.2	< 0.005	0.02	—	0.02	0.02	—	0.02	—	54.4	54.4	< 0.005	< 0.005	—	54.6
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	3,493	3,493	0.18	0.02	—	3,503
Water	—	—	—	—	—	—	—	—	—	—	—	220	214	433	0.76	0.48	—	596
Waste	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Off-Road	0.48	0.41	3.86	5.90	0.01	0.18	—	0.18	0.17	—	0.17	—	869	869	0.04	0.01	—	872
Total	16.7	16.1	7.95	46.3	0.08	0.29	5.87	6.16	0.27	1.49	1.76	445	11,436	11,881	23.8	0.82	10.9	12,730
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.63	0.57	0.65	4.90	0.01	0.01	1.07	1.08	0.01	0.27	0.28	—	1,127	1,127	0.05	0.05	1.81	1,145
Area	2.33	2.29	0.02	2.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	578	578	0.03	< 0.005	—	580
Water	—	—	—	—	—	—	—	—	—	—	—	36.4	35.4	71.8	0.13	0.08	—	98.7
Waste	—	—	—	—	—	—	—	—	—	—	—	37.3	0.00	37.3	3.73	0.00	—	130
Off-Road	0.09	0.07	0.70	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	144	144	0.01	< 0.005	—	144
Total	3.05	2.94	1.45	8.46	0.01	0.05	1.07	1.12	0.05	0.27	0.32	73.6	1,893	1,967	3.94	0.14	1.81	2,108

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.80	3.48	3.26	32.4	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	7,307	7,307	0.30	0.29	25.3	7,427
Area	13.8	13.6	0.16	19.3	< 0.005	0.03	—	0.03	0.03	—	0.03	—	79.5	79.5	< 0.005	< 0.005	—	79.8
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	3,493	3,493	0.18	0.02	—	3,503

Water	—	—	—	—	—	—	—	—	—	—	—	176	171	347	0.61	0.38	—	477
Waste	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Off-Road	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Total	18.4	17.6	9.23	60.4	0.09	0.38	6.01	6.38	0.34	1.53	1.87	401	12,270	12,671	23.7	0.71	25.3	13,499
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.46	3.13	3.83	27.2	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	6,675	6,675	0.34	0.32	0.66	6,780
Area	10.4	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	3,493	3,493	0.18	0.02	—	3,503
Water	—	—	—	—	—	—	—	—	—	—	—	176	171	347	0.61	0.38	—	477
Waste	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Off-Road	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Total	14.6	14.1	9.64	35.8	0.08	0.34	6.01	6.35	0.32	1.53	1.84	401	11,559	11,960	23.7	0.74	0.66	12,772
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.46	3.14	3.58	26.9	0.07	0.05	5.87	5.92	0.05	1.49	1.54	—	6,806	6,806	0.32	0.31	10.9	6,916
Area	12.7	12.6	0.11	13.2	< 0.005	0.02	—	0.02	0.02	—	0.02	—	54.4	54.4	< 0.005	< 0.005	—	54.6
Energy	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	3,493	3,493	0.18	0.02	—	3,503
Water	—	—	—	—	—	—	—	—	—	—	—	176	171	347	0.61	0.38	—	477
Waste	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Off-Road	0.48	0.41	3.86	5.90	0.01	0.18	—	0.18	0.17	—	0.17	—	869	869	0.04	0.01	—	872
Total	16.7	16.1	7.95	46.3	0.08	0.29	5.87	6.16	0.27	1.49	1.76	401	11,393	11,794	23.7	0.72	10.9	12,611
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.63	0.57	0.65	4.90	0.01	0.01	1.07	1.08	0.01	0.27	0.28	—	1,127	1,127	0.05	0.05	1.81	1,145
Area	2.33	2.29	0.02	2.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	578	578	0.03	< 0.005	—	580
Water	—	—	—	—	—	—	—	—	—	—	—	29.1	28.3	57.4	0.10	0.06	—	78.9

Waste	—	—	—	—	—	—	—	—	—	—	—	37.3	0.00	37.3	3.73	0.00	—	130
Off-Road	0.09	0.07	0.70	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	144	144	0.01	< 0.005	—	144
Total	3.05	2.94	1.45	8.46	0.01	0.05	1.07	1.12	0.05	0.27	0.32	66.4	1,886	1,953	3.92	0.12	1.81	2,088

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	3.80	3.48	3.26	32.4	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	7,307	7,307	0.30	0.29	25.3	7,427
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.80	3.48	3.26	32.4	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	7,307	7,307	0.30	0.29	25.3	7,427
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	3.46	3.13	3.83	27.2	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	6,675	6,675	0.34	0.32	0.66	6,780
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Total	3.46	3.13	3.83	27.2	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	6,675	6,675	0.34	0.32	0.66	6,780
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrig erated Wareho use-No Rail	0.63	0.57	0.65	4.90	0.01	0.01	1.07	1.08	0.01	0.27	0.28	—	1,127	1,127	0.05	0.05	1.81	1,145
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.63	0.57	0.65	4.90	0.01	0.01	1.07	1.08	0.01	0.27	0.28	—	1,127	1,127	0.05	0.05	1.81	1,145

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrig erated Wareho use-No Rail	3.80	3.48	3.26	32.4	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	7,307	7,307	0.30	0.29	25.3	7,427
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.80	3.48	3.26	32.4	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	7,307	7,307	0.30	0.29	25.3	7,427
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrig erated Wareho use-No Rail	3.46	3.13	3.83	27.2	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	6,675	6,675	0.34	0.32	0.66	6,780
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Total	3.46	3.13	3.83	27.2	0.07	0.05	6.01	6.06	0.05	1.53	1.58	—	6,675	6,675	0.34	0.32	0.66	6,780
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.63	0.57	0.65	4.90	0.01	0.01	1.07	1.08	0.01	0.27	0.28	—	1,127	1,127	0.05	0.05	1.81	1,145
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.63	0.57	0.65	4.90	0.01	0.01	1.07	1.08	0.01	0.27	0.28	—	1,127	1,127	0.05	0.05	1.81	1,145

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,867	2,867	0.13	0.02	—	2,875
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,023	3,023	0.14	0.02	—	3,032
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,867	2,867	0.13	0.02	—	2,875
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,023	3,023	0.14	0.02	—	3,032
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	475	475	0.02	< 0.005	—	476
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	25.9	25.9	< 0.005	< 0.005	—	25.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	500	500	0.02	< 0.005	—	502

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,867	2,867	0.13	0.02	—	2,875
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,023	3,023	0.14	0.02	—	3,032
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,867	2,867	0.13	0.02	—	2,875
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	156	156	0.01	< 0.005	—	157
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,023	3,023	0.14	0.02	—	3,032
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrig erated Wareho use-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	475	475	0.02	< 0.005	—	476
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	25.9	25.9	< 0.005	< 0.005	—	25.9
Total	—	—	—	—	—	—	—	—	—	—	—	—	500	500	0.02	< 0.005	—	502

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrig erated Wareho use-No Rail	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	470	470	0.04	< 0.005	—	471
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	470	470	0.04	< 0.005	—	471
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	470	470	0.04	< 0.005	—	471
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	470	470	0.04	< 0.005	—	471
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	77.8	77.8	0.01	< 0.005	—	78.1
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	77.8	77.8	0.01	< 0.005	—	78.1

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	470	470	0.04	< 0.005	—	471
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	470	470	0.04	< 0.005	—	471
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse Rail	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	470	470	0.04	< 0.005	—	471
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.39	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	470	470	0.04	< 0.005	—	471
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	77.8	77.8	0.01	< 0.005	—	78.1
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	77.8	77.8	0.01	< 0.005	—	78.1

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	9.53	9.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipm	3.44	3.17	0.16	19.3	< 0.005	0.03	—	0.03	0.03	—	0.03	—	79.5	79.5	< 0.005	< 0.005	—	79.8
Total	13.8	13.6	0.16	19.3	< 0.005	0.03	—	0.03	0.03	—	0.03	—	79.5	79.5	< 0.005	< 0.005	—	79.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	9.53	9.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	10.4	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.74	1.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.43	0.40	0.02	2.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Total	2.33	2.29	0.02	2.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
--------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	9.53	9.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.44	3.17	0.16	19.3	< 0.005	0.03	—	0.03	0.03	—	0.03	—	79.5	79.5	< 0.005	< 0.005	—	79.8
Total	13.8	13.6	0.16	19.3	< 0.005	0.03	—	0.03	0.03	—	0.03	—	79.5	79.5	< 0.005	< 0.005	—	79.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	9.53	9.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.86	0.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	10.4	10.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.74	1.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.16	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape	0.43	0.40	0.02	2.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Total	2.33	2.29	0.02	2.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	220	214	433	0.76	0.48	—	596
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	220	214	433	0.76	0.48	—	596
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	220	214	433	0.76	0.48	—	596
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	220	214	433	0.76	0.48	—	596
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse Rail	—	—	—	—	—	—	—	—	—	—	—	36.4	35.4	71.8	0.13	0.08	—	98.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	36.4	35.4	71.8	0.13	0.08	—	98.7

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	176	171	347	0.61	0.38	—	477
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	176	171	347	0.61	0.38	—	477
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	176	171	347	0.61	0.38	—	477
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	176	171	347	0.61	0.38	—	477
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	29.1	28.3	57.4	0.10	0.06	—	78.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	29.1	28.3	57.4	0.10	0.06	—	78.9

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	37.3	0.00	37.3	3.73	0.00	—	130
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	37.3	0.00	37.3	3.73	0.00	—	130

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	225	0.00	225	22.5	0.00	—	788

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	37.3	0.00	37.3	3.73	0.00	—	130
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	37.3	0.00	37.3	3.73	0.00	—	130

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Total	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Total	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.09	0.07	0.70	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	144	144	0.01	< 0.005	—	144
Total	0.09	0.07	0.70	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	144	144	0.01	< 0.005	—	144

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Total	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Total	0.68	0.57	5.42	8.28	0.01	0.26	—	0.26	0.24	—	0.24	—	1,220	1,220	0.05	0.01	—	1,224
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Forklifts	0.09	0.07	0.70	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	144	144	0.01	< 0.005	—	144
Total	0.09	0.07	0.70	1.08	< 0.005	0.03	—	0.03	0.03	—	0.03	—	144	144	0.01	< 0.005	—	144

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetati on	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
-------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	773	773	773	282,264	8,468	8,468	8,468	3,090,730
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	773	773	773	282,264	8,468	8,468	8,468	3,090,730
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	666,662	222,221	13,996

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	3,750,291	279	0.0129	0.0017	1,467,062
Parking Lot	204,339	279	0.0129	0.0017	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	3,750,291	279	0.0129	0.0017	1,467,062

Parking Lot	204,339	279	0.0129	0.0017	0.00
-------------	---------	-----	--------	--------	------

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	102,776,981	1,130,855
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	82,221,585	904,684
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	418	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	418	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
---------------	----------------	-------------	-----	---------------	----------------------	-------------------	----------------

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
---------------	----------------	-------------	-----	---------------	----------------------	-------------------	----------------

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	8.00	8.00	82.0	0.20

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Forklifts	Diesel	Average	8.00	8.00	82.0	0.20

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
----------------	-----------	----------------	---------------	----------------	------------	-------------

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

5.17. User Defined

Equipment Type	Fuel Type
----------------	-----------

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
--------------------------	----------------------	---------------	-------------

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
--------------------------	----------------------	---------------	-------------

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
--------------------	---------------	-------------

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
--------------------	---------------	-------------

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

8. User Changes to Default Data

Screen	Justification
Land Use	Based on current site plans.

APPENDIX B

DRAINAGE REPORT

Waterman and Brinkman Logistics Center DRAINAGE REPORT

CITY OF ELK GROVE, SACRAMENTO COUNTY, CALIFORNIA

PREPARED FOR:
Buzz Oates Construction



February 7, 2024
Updated May 22, 2024
Updated July 16, 2024



PREPARED BY:
Watermark Engineering Inc.
3153 Jenna Court
Roseville, CA 95747
Ph: 916. 774.1111
Email: pstiehr@wtrmark.com

OVERVIEW	1
METHODOLOGY	2
Design Criteria.....	2
XP SWMM	3
SacCalc	3
Topography & Soil Characteristics	3
ONSITE ANALYSIS	3
Existing Conditions	3
Developed Conditions	4
Hydrology	4
Hydraulics.....	6
Site Ponding	10
Onsite Detention Basin	10
Characteristics.....	10
Stormwater Quality Design.....	11
Low Impact Design.....	11
OFFSITE FLOOD MITIGATION	12
Overview of Existing Studies and Hydraulic Models	12
Hydrology.....	13
Hydraulics	14
Findings and Analysis Summary	16
West Yost	16
Watermark Engineering.....	16

APPENDICES

APPENDIX A	TOPOGRAPHIC SURVEY & PROPOSED BASIN DESIGN
APPENDIX B	RANEY GEOTECHNICAL REPORT
APPENDIX C	ONSITE HYDRAULICS DATA SUMMARY
APPENDIX D	LID SPREADSHEET
APPENDIX E	WEST YOST TECH MEMO 10-17-11
APPENDIX F	DETENTION BASINS STORAGE DATA
APPENDIX G	BASIN USER MANUAL

FIGURES

Figure 1.	Vicinity Map
Figure 2	Project Site Plan
Figure 3	Building A (Brinkman) DMA Exhibit
Figure 4	Building B (Waterman) DMA Exhibit
Figure 5	Onsite XP SWMM Modeling Map
Figure 6	Building A-10-and 100-year Outflow Hydrographs
Figure 7	Building B-10-and 100-year Outflow Hydrographs
Figure 8.	Plot of 10- and 100-yr Water Surfaces Profiles at Detention Basin
Figure 9.	Plot of Basin Outflow During 10- and 100-year Design Storms
Figure 10.	Plot of Elk Grove Flows at Basin Outlet
Figure 11.	Detention Basin with Water Quality and LID Features
Figure 12.	Elk Grove Creek Watershed
Figure 13.	Baseline SacCalc Model from Elk Grove Drainage Master Plan
Figure 14.	Modeling Cross-sections
Figure 15.	Detention Basin Weir Configurations
Figure 16.	Detention Basin Weir 100-year Storm Hydrograph
Figure 17.	Detention Basin 30-inch Outfall Pipe 100-yr Storm Hydrograph
Figure 18.	Water Surface Profile in Elk Grove Creek at Project Outlet
Figure 19.	Comparison of Existing and Developed Flows in Elk Grove Creek just of Project Outfall

TABLES

Table 1	Existing Conditions Peak Flows
Table 2 –	Summary of Post Project Peak Flows
Table 3 –	Comparison of Peak Flows Leaving Development Site
Table 4	Computed 100-year Storm Ponding Locations
Table 5	Grassy Swale Parameter for Buildings A and B Runoff
Table 6	Elk Grove Creek-Comparison of Existing and Post project Peak Flows and Maximum Water Surface Elevations

OVERVIEW

This update from Feb 7 to May 22 was because the Waterman Building configuration was changed. The Buzz Oates Waterman Road at Brinkman Court Logistics Center (WBLC) consists of two light industrial warehouses on three parcels totaling almost 30 acres in Elk Grove, California. The project is located within the Elk Grove southeast industrial area, approximately 0.5 miles north of the intersection of Waterman Road and Grant Line Road. Building A will be on the parcel fronting the west side of Waterman Road, and Building B will be located on the two parcels west of Brinkman Court. See Figure 1: Vicinity Map and Figure 2: Site Plan.

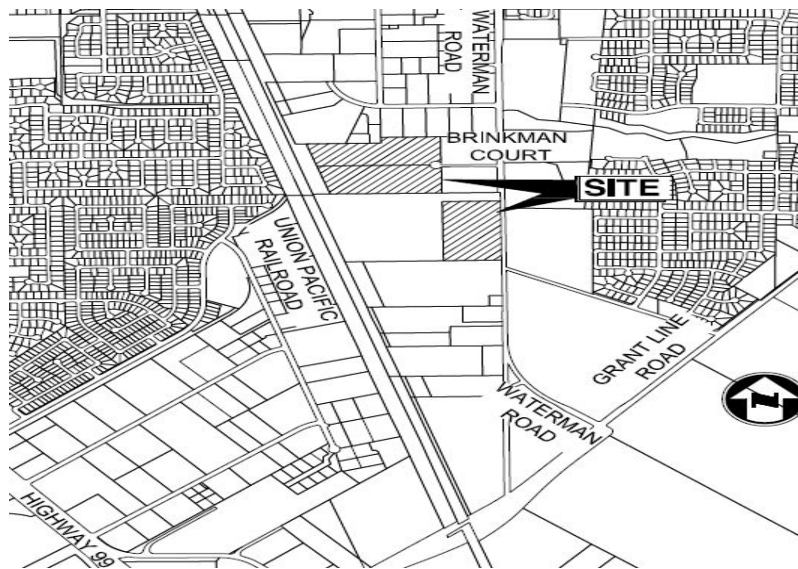


Figure 1. Vicinity Map



Figure 2. Site Plan for Waterman Brinkman Logistics Center

The three parcels are being combined to efficiently manage grading and site preparation along with storm drainage and fire suppression. The site is bounded by the Elk Grove Creek to the north, Industrial sites to the south and west, and Waterman Road to the east. The project is located in a portion of the NW ¼ of Section 7, Township 6 North, Range 6 East, Mount Diablo Base Meridian, City of Elk Grove, Sacramento County, California.

This drainage study includes both onsite and an impact analysis that the WBLC will have on Elk Grove Creek that passes along the north side of Building A. An earlier submittal included two separate drainage studies- one for the onsite water quality and attenuation, and a second study to evaluate the impacts the development would have on peak flows in Elk Grove Creek.

In the previous design, the onsite Low Impact Design (LID), Stormwater Quality, and attenuation facilities were to be underground. In addition, there was a proposed detention basin just west of Building A that was planned to reduce impacts to Elk Grove Creek.

After the approval of the Conditional Letter of Map Revision through FEMA, additional hydraulic modeling led to the conclusion that the basin that was to be owned and maintained by Buzz Oates could be used to manage both onsite runoff and provide peak flow attenuation along Elk Grove Creek.

The bottom portion of the basin will provide LIDs and water quality for the onsite runoff for both of the proposed buildings, and the upper portion of storage will provide regional peak flow attenuation at Elk Grove Creek. Due to the mutually beneficial nature of the current design, the previous approach of fully undergrounding the entire onsite measures has been abandoned.

The purpose of this report is to show that the proposed drainage infrastructure, water quality, Low Impact Design measures (LID), and the flood control design are compliant with the City of Elk Grove engineering standards and design requirements.

METHODOLOGY

DESIGN CRITERIA

The following documents, reports, and design studies were used as reference for this report:

- The City of Elk Grove Storm Drainage Master Plan (SDMP), West Yost, 2011
- The City of Elk Grove Capital Improvement Program (CIP), City of Elk Grove, June 2019
- The City of Elk Grove Improvement Standards Manual, City of Elk Grove, October 2018
- The City of Elk Grove Standard Drawings, City of Elk Grove, January 2020
- Volume 2 of the Sacramento City/County Drainage Manual, Sacramento County, 1996
- Elk Grove Municipal Code Chapter 15 & Sections 16.50 & 23.42.040
- Sacramento Region Stormwater Quality Design Manual, October 2019
- Sacramento Stormwater Quality Partnership Hydromodification Management Plan, Revised December 2017

XP SWMM

The Autodesk software XP SWMM is a hydrodynamic stormwater model that computes runoff hydrographs and then routes them through the site sub-sheds based on the hydraulic parameters including roadways, curb and gutter, storm drains, ditches, and channels. The dynamic character of the program provides an analysis of the entire storm event as the event proceeds through time, rather than the traditional snapshot of the peak flow. The model also allows for storm systems to surcharge and pond, allowing for the peak flows to pass through the system, then flowing back into the conveyance facilities dictated by hydraulic gradelines. The XP SWMM methodology is consistent with the design guidelines of the City of Elk Grove and Sacramento County.

SacCalc

The XP SWMM program has an embedded version of the SacCalc software, using the Sacramento Method to generate runoff hydrographs based on Sacramento County rainfall hyetographs for various design storms. The SacCalc program is based on the Bureau of Reclamation urban unit hydrographs and Sacramento County-wide precipitation zones.

Topography & Soil Characteristics

The site's current topography is defined by a mass grading project that was conducted in 2016. The original mass grading project onsite created drainage channels to collect and convey the surface water across the large mass graded pads. Much of the water is directed to the constructed basin at the northwest corner of the Brinkman Site or to a swale at the eastern portion of the Brinkman Site that empties into the public storm drain system.

A topographic survey of the proposed projects is included in **Appendix A**. These topographic surveys include aerial photogrammetric surveys, which were used to supplement the model for the offsite flood control analysis in Elk Grove Creek. The site itself generally falls from southeast to northwest, and the slope varies from 0% to 2%. Generally, the underlying soils onsite consist of "San Joaquin silt loam". For all calculations, a USDA **Class C** hydrologic soil group has been applied. A Geotechnical report with a soil investigation conducted by Raney Geotechnical is included in **Appendix B**.

ONSITE ANALYSIS

EXISTING CONDITIONS

Both the Waterman and the Brinkman sites have been provided public storm drainage stubs from the "9984 Waterman Road & Brinkman Court" project. However, Brinkman's storm drainage stub was placed 6.5' below grade (to invert), and Waterman's drainage stub was placed 3.5' below grade also. Both stubs are placed at impractical elevations for the proposed development without added pumping.

As a result, the existing drainage facilities will not be utilized beyond the temporary construction phases.

Each development site will have a new storm drain system with both systems discharging into the single stormwater detention basin located west of Building A. The basin will also provide water quality and LID measures at the basin bottom. The invert of the basin outfall structure is designed to discharge above the Elk Grove Creek Ordinary High-Water Mark (OHWM).

The existing conditions runoff for the entire 29.5 acres was calculated by using the SacCalc pre-processors embedded into XP SWMM. The Basin “n” method was used to define the existing site as an open space type C soil group. The SacCalc model analyzed a 24-hour duration for the 10- and 100-year storms. As the site generally grades towards the existing constructed basin in the northwest corner of the Brinkman site, the entire project areas was analyzed as one area. The existing conditions peak flows are shown in **Table 1**.

Table 1. Onsite Existing Conditions Peak Flows

Storm Frequency	Peak Flow (cfs)
10	20
100	34

Note that no additional hydraulic routing was used to estimate the peak flows for existing conditions.

DEVELOPED CONDITIONS

Hydrology

The post construction hydrology was also calculated using SacCalc within XP-SWMM. The site was subdivided into fifteen subsheds (nodes) or drainage management areas (DMA’s). See below for the Waterman & Brinkman project DMAs in **Figures 3 & 4**.

Runoff hydrographs were computed for each subshed based on the NRCS Hydrologic Soil Group C rating, a light-industrial land use, and the basin “n” method with 90% imperviousness.

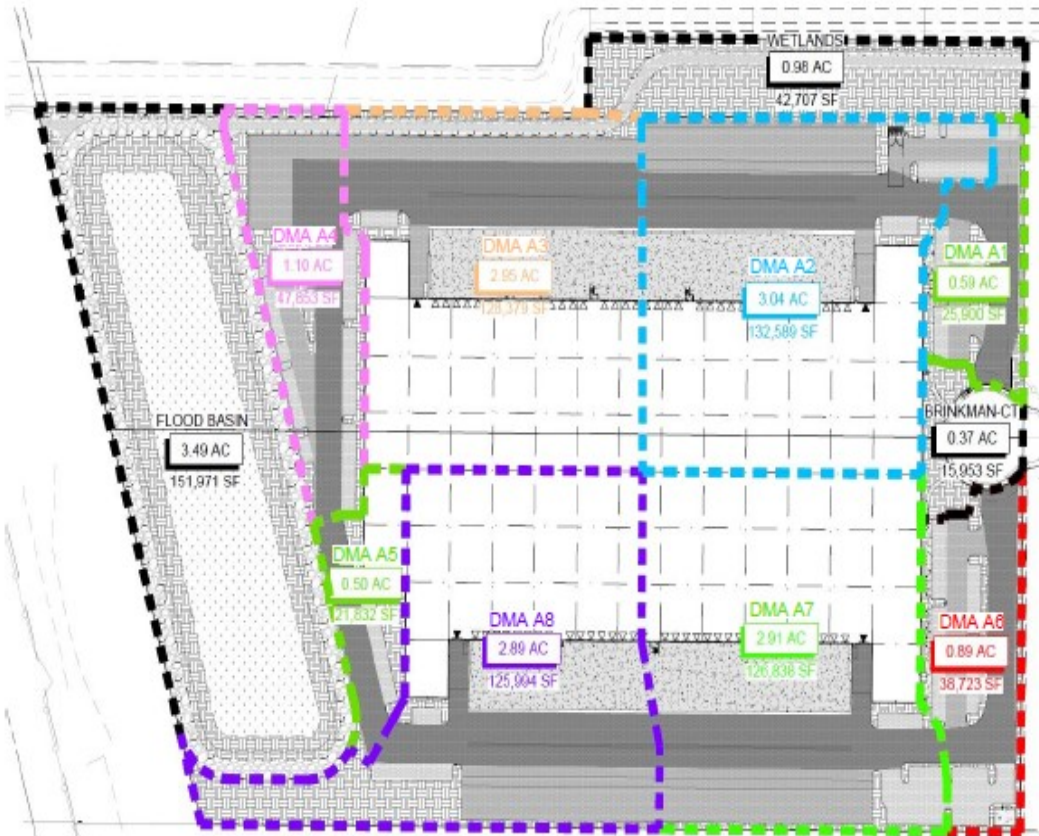


Figure 3 - Waterman DMA Exhibit - Building A

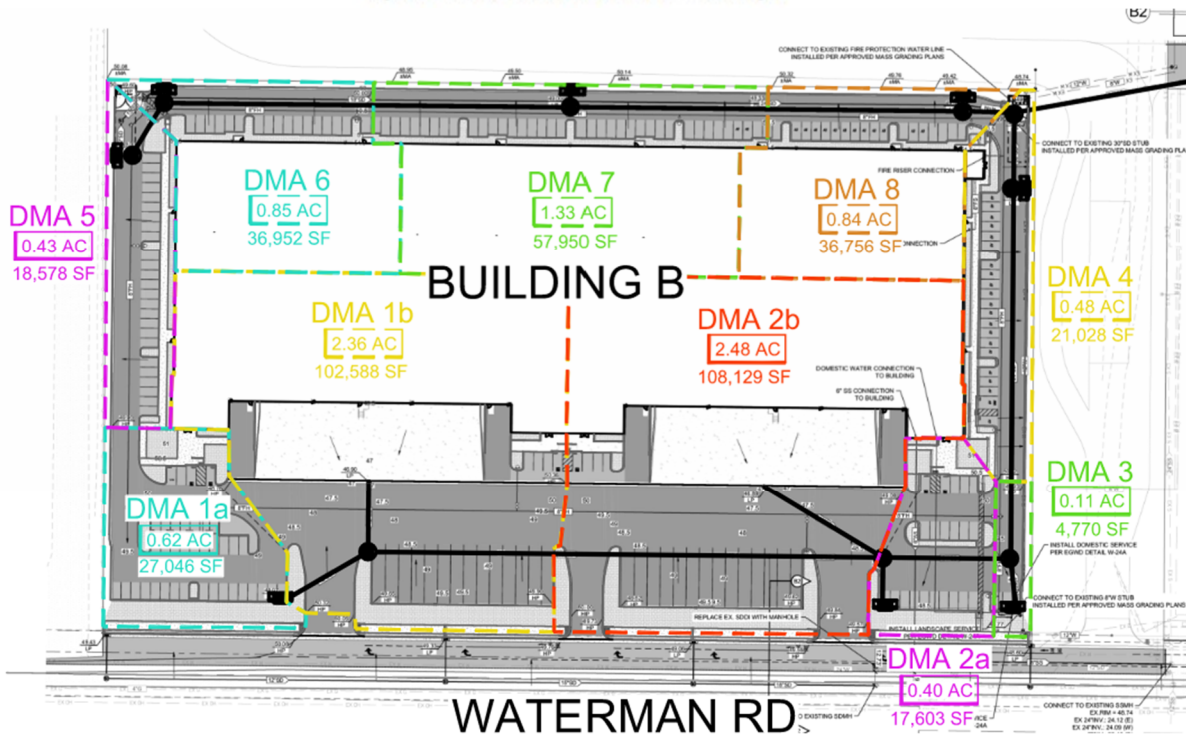


Figure 2. Site Plan for Waterman Brinkman Logistics Center

Table 2 provides a summary of the hydraulic parameters and the 10-and 100-year peak flows from each of the 18 sub-watersheds.

Table 2 – Summary of Post Project Peak Flows

Table 2. Summary of Post Project Peak Flows					
Name	Catchment Area ac	% Impervious %	Basin "n" Method	10-yr Max Flow (cfs)	100-yr Max Flow (cfs)
A1 DMA	0.59	90	Specify	1.1	1.9
A2 DMA	3.04	90	Specify	5.6	9.6
A3 DMA	2.95	90	Specify	5.4	9.3
A4 DMA	1.10	90	Specify	2.0	3.5
A5 DMA	0.50	90	Specify	0.9	1.6
A6 DMA	0.89	90	Specify	1.6	2.8
A7 DMA	2.91	90	Specify	5.3	9.2
A8 DMA	2.89	90	Specify	5.3	9.1
B1a DMA	0.62	90	Specify	1.3	2.2
B1b DMA	2.36	90	Specify	4.9	8.4
B2a DMA	0.4	90	Specify	0.8	1.4
B2b DMA	2.48	90	Specify	5.1	8.8
B3 DMA	0.11	90	Specify	0.2	0.4
B5a MH+DMA	0.43	90	Specify	0.9	1.5
B6a MH+DMA	0.85	90	Specify	1.6	2.7
B7a MH+DMA	1.33	90	Specify	2.4	4.2
B8a MH+ DMA	0.84	90	Specify	1.5	2.6
BuzDB	3.49	2	Travl Time	3.4	6.7

Hydraulics

The on-site storm hydrographs were then routed through the drainage facilities using the hydraulics component of the XP SWMM software. Figure 5 provides a screenshot of the XP modeling map for the two sites.

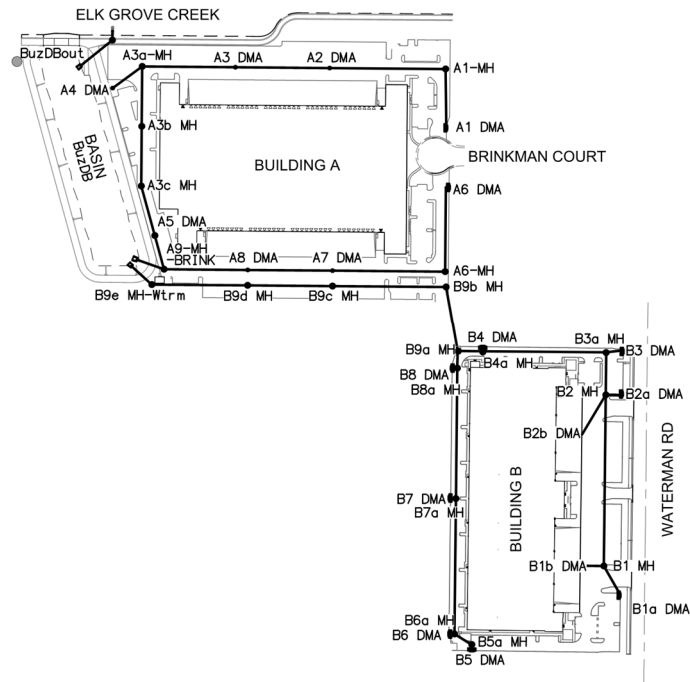


Figure 5. Onsite XP SWMM Modeling Map

The design storms were routed along the storm drain system to the detention basin. Figures 6 and 7 below are compiled hydrographs of the 10- and 100-year storms at the outfalls from the Building A site and the Building B site into the detention basin.

Conduit A9MH-p-out from A9-MH-Brink to BuzDB

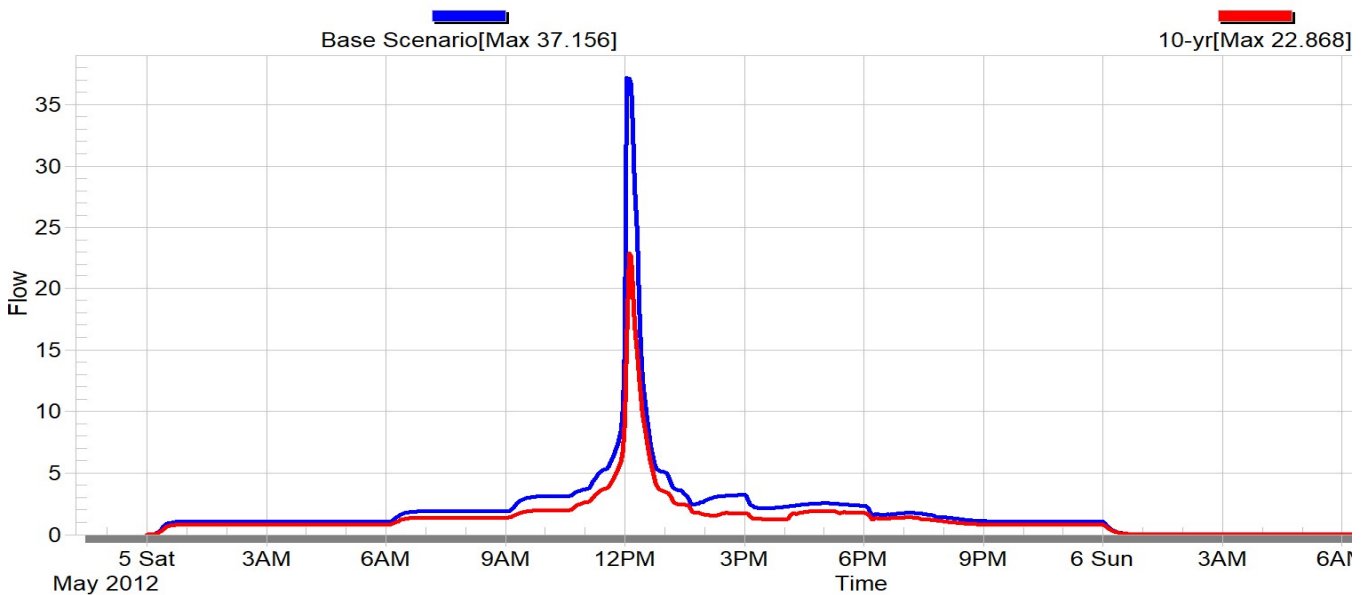


Figure 6. Ten and 100-yr outflow hydrographs from Building A Site

Conduit B9e-MH-p-out from B9e MH-Wtrmn to BuzDB

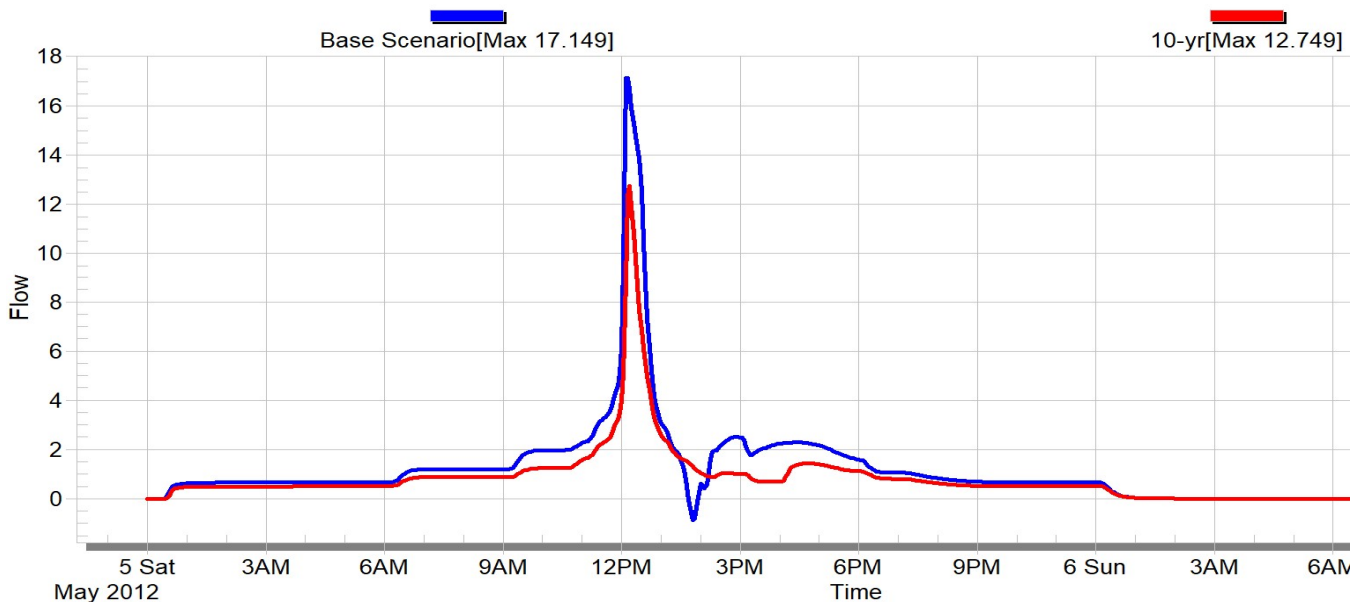


Figure 7. Ten and 100-yr outflow hydrographs from Building B Site, Base Scenario is 100-yr storm

Note that the 100-yr flow from the project into the basin is negative at about 1:40PM. The reason is that Elk Grove Creek is spilling into the basin that backwater causes and a small amount of reverse flow in the project storm drain system. This occurs well after peak runoff from the project.

The 10-and 100-year storms were also routed through the basin and into Elk Grove Creek to determine development impacts. **Appendix C** provides a summary of the hydraulic analysis. **Table 3** provides a comparison of the flows leaving the development site under existing and developed conditions. The developed flows are less than existing flows which confirms there is not an increased flow from the development.

Table 3 – Comparison of Peak Flows Leaving Development Site

24hr Storm Event	Exist Conditions (cfs)	Dev. Conditions (cfs)
10-YR	20	12
100-YR	34	19

It is noted here that the timing of the peak storage in the Waterman Basin occurs at a little after 2 pm but the peak outflows from the Waterman Brinkman development site occur around 4 pm of the 24-hour storm as shown on **Figures 8** and **9** below.

Please also note that there is no outflow from about 12:30 pm to 2:20 pm. The Elk Grove Creek peak flow passes the site at about 2:10 pm (See **Figure 10**). That means that not only has the flow from the site been reduced to below existing levels, the development site does not contribute flow during the Elk Grove Creek critical peak flow period. The backwater from Elk Grove Creek is higher compared to the water level in the basin, which means no flow leaves the basin during the critical peak flow period of Elk Grove Creek.

Node - BuzDB

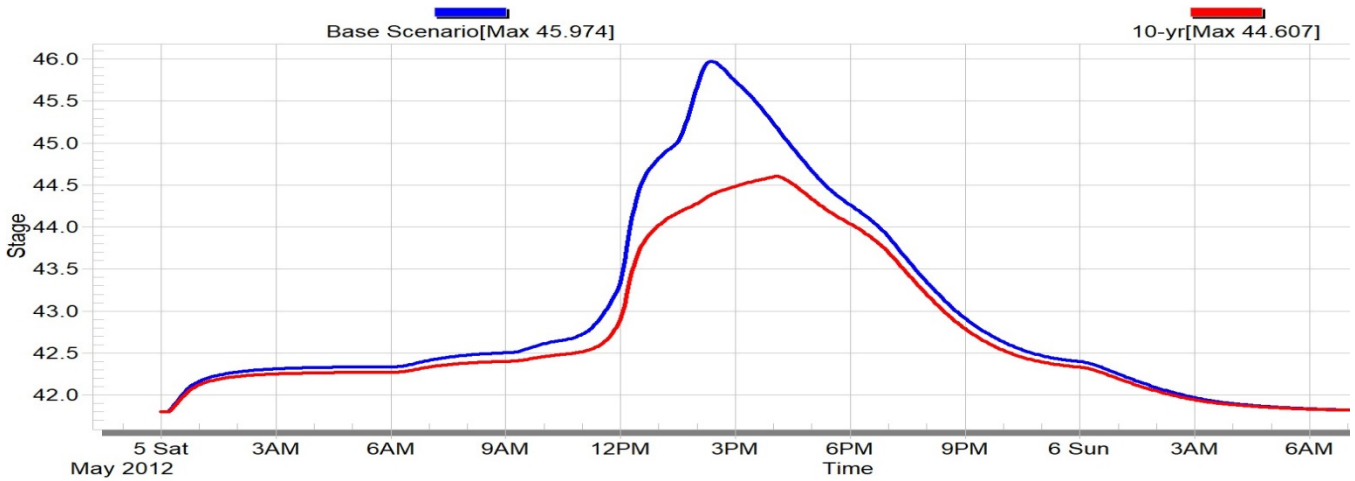


Figure 9. Plot of Basin Water Surface Elevations During 10- and 100-year Design Storms

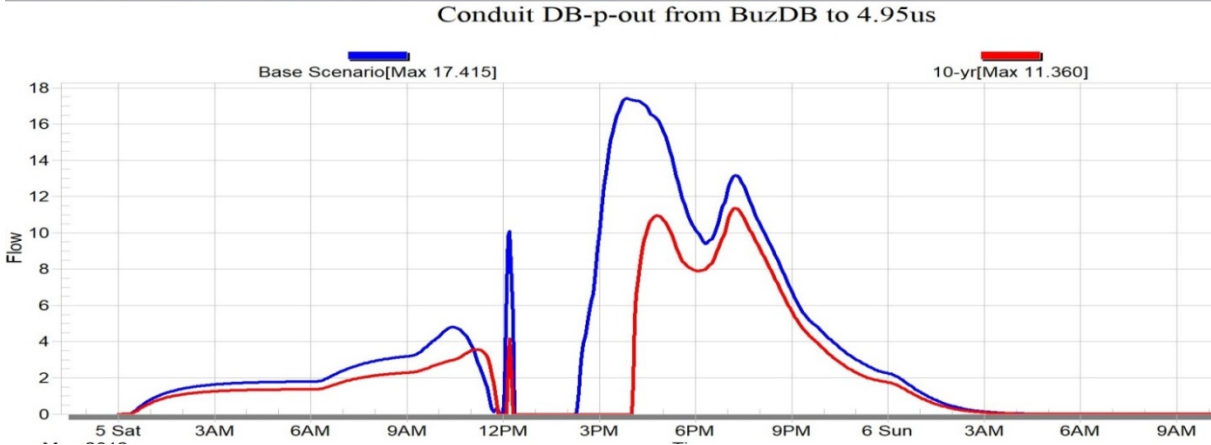


Figure 9. Plot of Basin Outflow During 10- and 100-year Design Storms

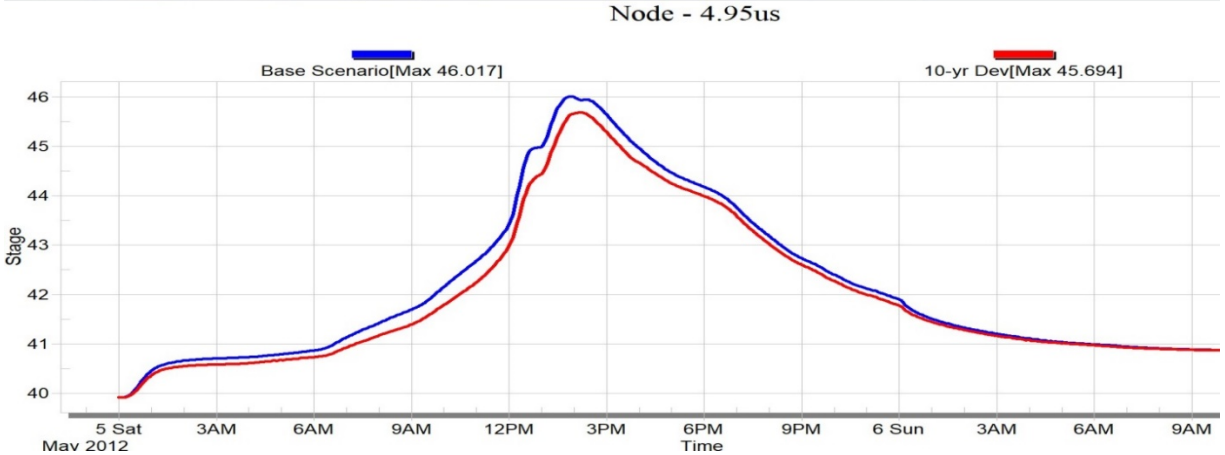


Figure 10. Plot of Elk Grove Creek Water Profiles at Basin Outlet

Site Ponding

The analysis indicates that there could be shallow ponding around the drain inlets within the truck docks during the 100- year storm. Modeling results are presented in Table 4 below.

Table 4. Computed 100-year Storm Ponding Locations

Location	Volume Flooded (Acre-ft)	Total Time Flooded (min)
DMA A1	0.005	14
DMA A2	0.025	13
DMA A4	0.006	9
DMA A6	0.006	9
DMA A8	0.006	9
DMA B1a	0.05	30
DMA B2b	0.04	30

Because of the generally large area and that the drain inlets are at or near the same elevation, water blocked at a DI will flow to a nearby DI. Ponding depths are expected to be less than one foot and not leave the site.

As a final comment, if flows exceed the 100-year flow or there is significant blockage, the emergency release is to the Brinkman cul-de-sac for Building A and to Waterman Road for Building B.

ONSITE DETENTION BASIN

Characteristics

The proposed basin bottom is approximately 615 feet long and 120 feet wide. The total basin area, including the access road, occupies 3.49 acres of land... The proposed basin will provide almost 10 acre-feet of storage at the top of freeboard and will use about 5.8 acre-feet of storage for both private and public attenuation during the 100-yr storm.

Flows will enter the basin from the Waterman and Brinkman sites at the southeast end of the basin. Once routed through the LID and water quality features, the flows will pond in the basin. The ponding will continue until it reaches the elevation of the outfall at the northeast end of the basin and outfall to Elk Grove Creek to the north.

Figure 10 below provides a draft layout of the basin bottom than includes the LID grassy swales and water quality gravel bed. A full version of the basin plan sheet can be found in the Improvement Plans prepared by MCR Engineering.

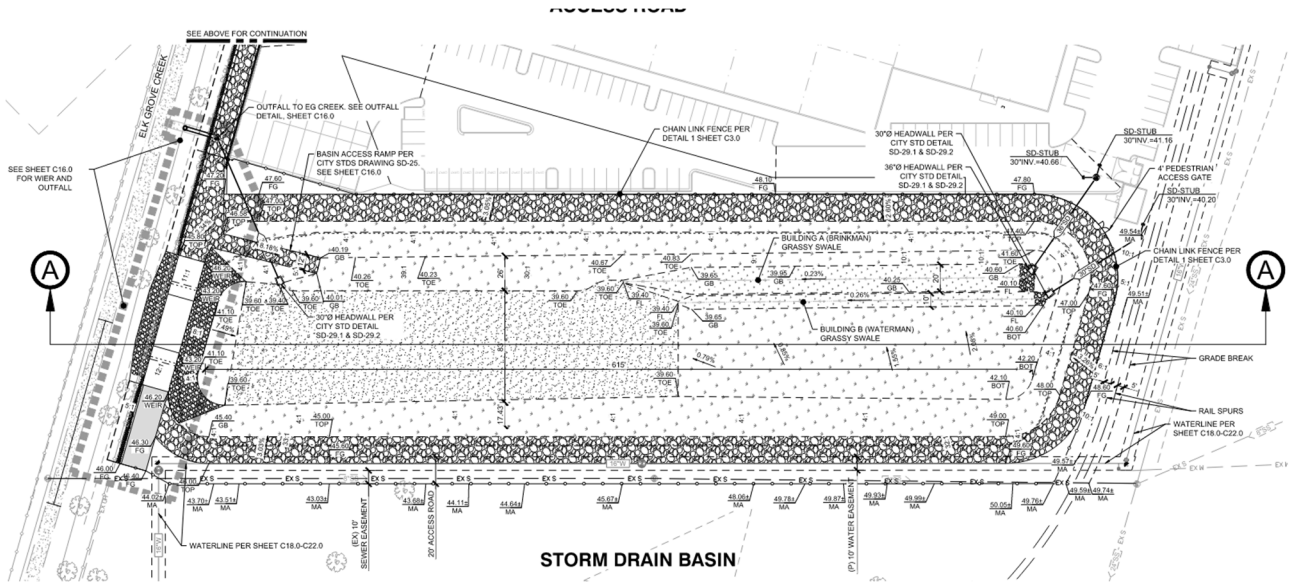


Figure 11– Detention Basin with Water Quality and LID Features

Treatment

Low Impact Design

LID measures are implemented to reduce pollution, site runoff, and habitat impairment. LID measures accomplish these goals by promoting infiltration, reducing the percentage of impervious surfaces, disconnecting impervious surfaces, and by promoting stormwater interception with trees, shrubs, and other vegetation.

There is not a lot of room for the LID measures mentioned above. After the runoff is routed through the vegetated swales, it will enter a 27,000 square foot infiltration trench. This infiltration trench is a shallow trench with a large surface area, backfilled with clean, crushed rock, 2.5 feet thick with 40% void space. The trench was sized based on 0.85 ac-ft of water quality volume per the LID Spreadsheet. See **Appendix D**. Water Quality is managed using independent grassy swales for the two buildings.

Stormwater Quality Design

Both the Waterman and Brinkman sites will be routed through vegetated swales within the basin bottom. The two independent swales have been sized to comply with the seven-minute residence time requirements per the water quality manual. See **Table 5** for the hydraulic parameters. Additionally, interceptor trees have been placed throughout the site that intercept a portion of the stormwater.

Table 5. Grassy Swale Parameter for Buildings A and B Runoff

Shed ID	Shed Area (ac)	Q= CIA(cfs) C= 0.95, I= 0.18,	Grassy Swale Length (ft)	Water Depth (ft)	Chnl Botm Width (ft)	%Chnl Slope (ft/ft)	Flow Vel (ft/sec).	Residence Time (minimum 7 min)
Bldg A	15.0	2.6	260	0.20	20	0.25	0.62	7.0
Bldg B	9.9	1.7	260	0.19	20	0.25	0.60	7.0

Hydromodification

Project runoff meets the general requirements in that developed flows are equal to or less than existing conditions flows for the statistical storms analyzed that included 2-, 5- 10-, 50- and 100-year storms. The analysis of the two-year storm was completed separately in a hydromodification analysis and a copy of the hydro modification report can be made available upon request.

OFFSITE FLOOD MITIGATION

OVERVIEW OF EXISTING STUDIES AND HYDRAULIC MODELS

Elk Grove Creek is a tributary of Laguna Creek, the largest watershed in Elk Grove. The magenta boundary in **Figure 11** delineates Elk Grove Creek's drainage area from the Elk Grove Storm Drain Master Plan. The drainage area upstream of the project location on Elk Grove Creek is approximately 1.97 square miles or 1,260 acres.

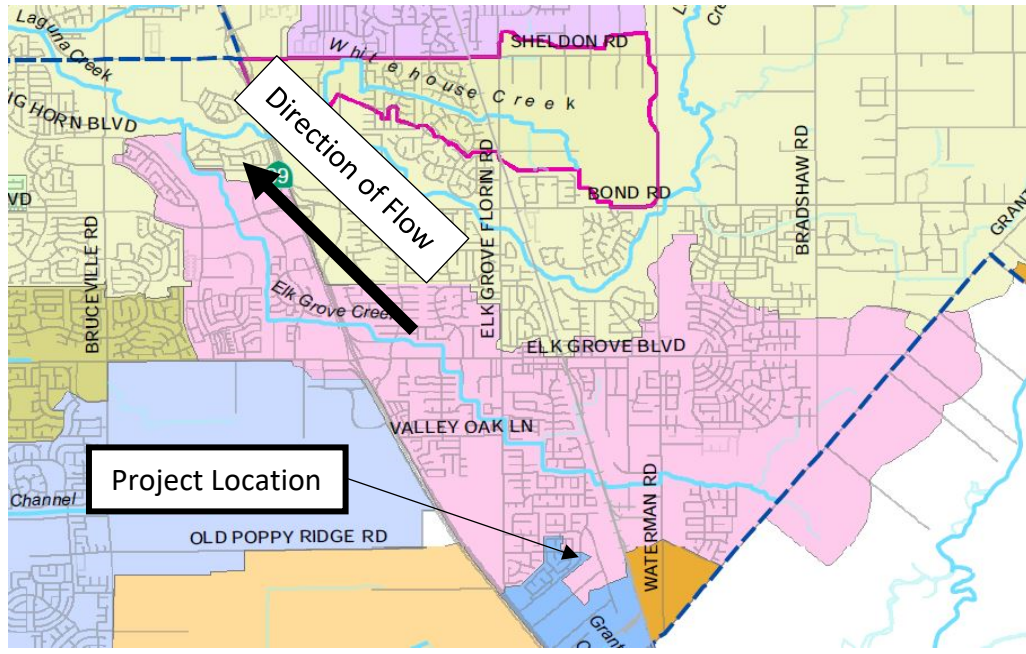


Figure 12- Elk Grove Creek Watershed

West Yost and Associates (WYA) prepared a **Storm Drainage Master Plan** for the City of Elk Grove in 2011. WYA also prepared a Technical Memorandum (TM) dated October 17, 2011, to provide preliminary design alternatives for Buzz Oates to mitigate peak flows along Elk Grove Creek within an area identified as the South County Business Park (SCBP).

Detention basin alternatives were evaluated by modifying using the SacCalc and HEC-RAS models from the **Master Plan** to more accurately detail the proposed development impacts on Elk Grove Creek. West Yost's technical memorandum is included in **Appendix E** for reference.

Watermark Engineering Inc (WEI) then updated and revised the hydrology and hydraulic data based on changes since 2011. The hydrology was updated based upstream land use changes. The hydraulic data was updated based on recent field surveys, changes to the proposed Oates project and associated detention basin, to the upstream drainage facilities that include two detention basins, and to the Elk Grove Creek crossing at Waterman Road.

The XP SWMM software was used for both the revised SacCalc calculations and the dynamic hydraulic modeling of the channel and drainage facilities. The dynamic component of the XP model provides accurate accounting of the timing and movement of the flow hydrographs as they pass along the project site.

Please also note that the hydraulic analysis for the WBLC is on the NAVD 88 datum while the Improvement Plans for the WBLC is on the NGVD 29 datum. Then conversion is:

$$\text{NAVD 88 -2.4 ft} = \text{NGVD 29}$$

The reason for this conversion is that this analysis will be used to complete a FEMA LOMR and remove a portion to the WBLC site from the regulatory floodplain. FEMA data are now typically presented using the NAVD 88 datum.

HYDROLOGY

The WYA hydrologic modeling for the Elk Grove Creek watershed was performed using the Sacramento County's Sacramento Method program, SacCalc, to generate design flow hydrographs per Volume 2 of the Sacramento City/County Drainage Manual.

The model was originally created for the City of Elk Grove Storm Drain Master Plan and then modified by WYA for *Hydraulic Analysis for South County Business Park Technical Memorandum*, dated October 17th, 2011. WYA subdivided Tributary L41690 into 4 watersheds (L41691, L41692, L41693, L41694). **See Figure 12.**

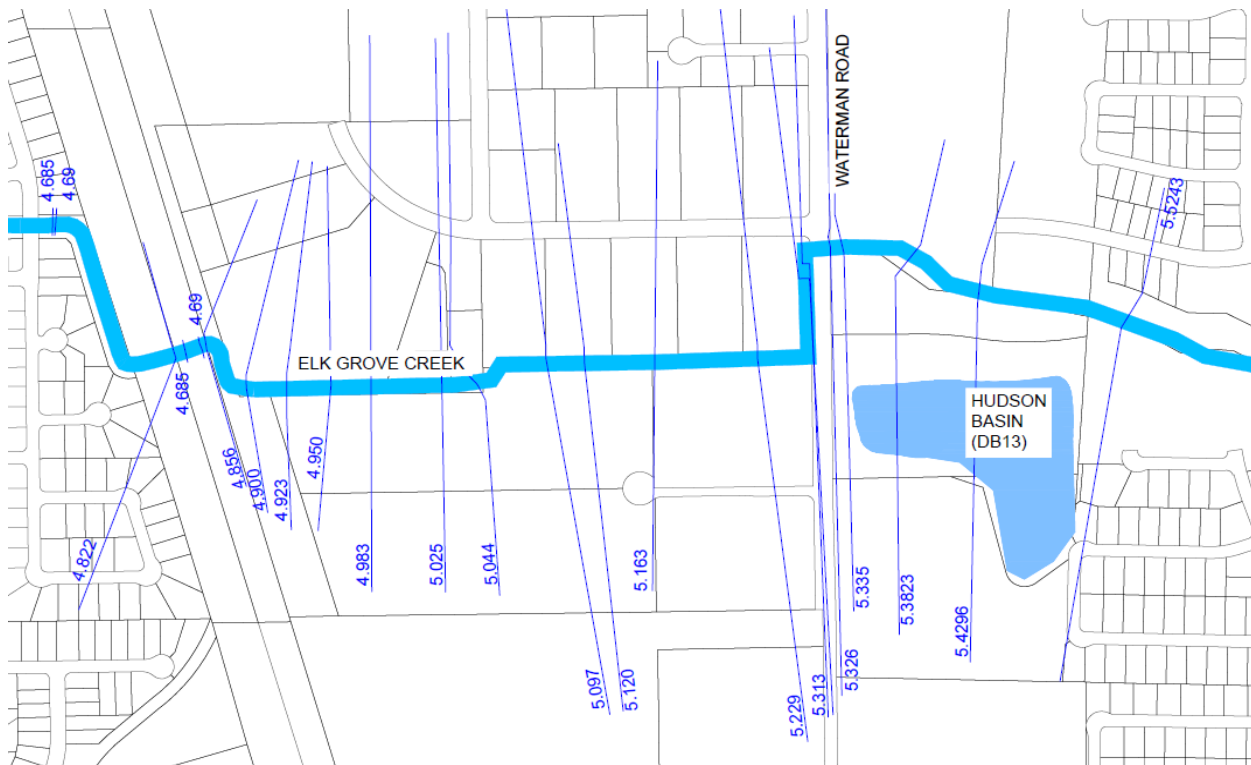


Figure 14 Model Cross Sections

The revisions and updates by Watermark Engineering, Inc. (WEI) included:

- a. Surveying additional cross-sections at and upstream of Waterman Road;
- b. Revisions to model that include the Hudson Basin and the City basin per the field survey and construction drawings. The Hudson basin manages runoff from the nearby development north and east of the basin. The City basin is offline and will receive Elk Grove Creek runoff only during high flow.
- c. Revisions to the model at the Waterman Road culvert crossing. The Waterman Road crossing was modeled with proposed two 8 ft by 10 ft box culverts that were to replace three elliptical CMP pipes. each with an equivalent diameter of 36 inches. The three culverts have not been replaced.
- d. A 30-inch outfall from the detention basin into Elk Grove Creek just upstream of cross-section 4.95.
- e. A trapezoidal weir at x-sec 4.95 that provides an offline connection from the basin to the Elk Grove Creek channel. The weir sill is 40' wide at elevation 45.6 (NGVD 88). **See Figure 14**
- f. Revisions to the model to reflect the current and most accurate design of the onsite storm drain system and the WBLC detention basin.

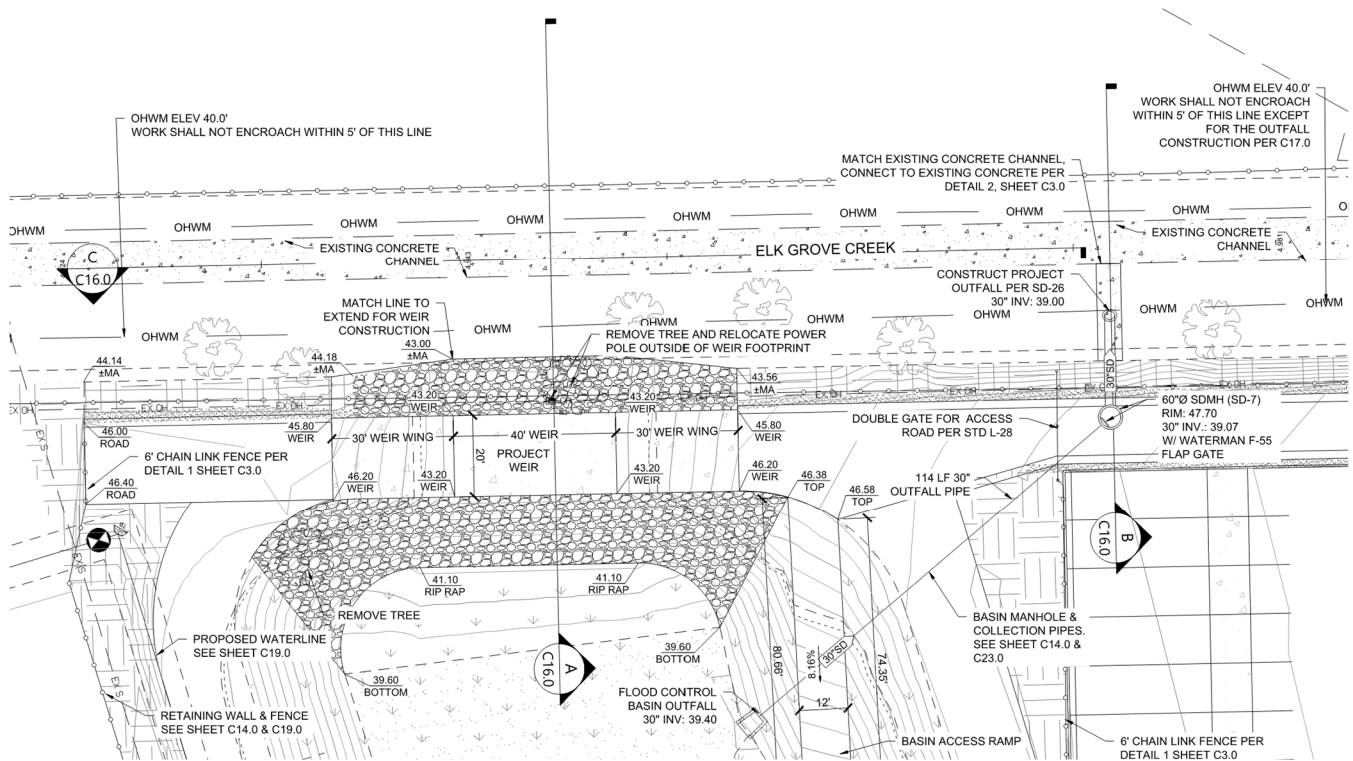


Figure 15. Detention Basin Weir Configuration

FINDINGS AND ANALYSIS SUMMARY

West Yost

This basin mitigation concept was identified in the WYA 2011 *Storm Drainage Master Plan* with greater detail provided in the October 17, 2011, Tech Memo by West Yost's entitled *Hydraulic Analysis for South County Business Park*.

The West Yost HEC-RAS analysis provided three alternatives to mitigate the increased flow from the development area and to help mitigate existing high flows along Elk Grove Creek (EGC). Two inline detention basin alternatives and an offline detention basin alternative, all located at the western side of the WBKC site were presented.

The offline basin was recommended. Without a detention basin, the proposed development would increase the existing 100-year flow from 489 cfs to 497 cfs, (+8 cfs). The benefits of the basin would be to decrease the 100-year flow in Elk Grove Creek from the existing 489 cfs to 476 cfs, (-13 cfs). The water surface elevation dropped 0.08 feet with the basin in place.

Watermark Engineering

The revision that used the existing triple CMP culverts at the Waterman Road crossing instead of the future large double box culvert naturally increased road overflow during the 100-year storm.

However, the downstream impacts from this revision were less significant, mainly because the Hudson and City basins east of Waterman Road are not plumbed efficiently.

The onsite WBLC basin was originally sized for only offsite attenuation of EGC peak flows. However, through the process of modeling for the FEMA CLOMR for Elk Grove Creek, the analysis shows that there is available space for attenuation of both local development flows and creek flows.

The basin will have a typical outflow pipe into Elk Grove Creek (EGC) and a spillway designed to accept EGC water during periods of very high flow. The basin is large enough that the onsite runoff will fill only the lower portion of the basin. When the peak flow in EGC passes, some water will flow into the top portion of the basin, thereby not only mitigating the increased runoff from the development site but also help lessen the peak flows along EGC.

The proposed basin bottom is approximately 615 ft long and 120 feet wide. The total basin area, including the access road, occupies 3.49 acres of land. The proposed basin will provide approximately 10 acre-feet of storage at the top of bank that includes two feet of freeboard, for both private and public attenuation. The top of the basin elevation will be 48.0 with an access road located around the basin.

Like the basin, the weir at the north side of the basin will serve two purposes. It will be the point of overland release for the private flows entering the basin, and it will also act as an inlet and outlet for peak flows from ELC to enter the basin for temporary offline storage.

The hydrograph below (**Figure 15**) shows flows both entering and leaving the basin via the weir.

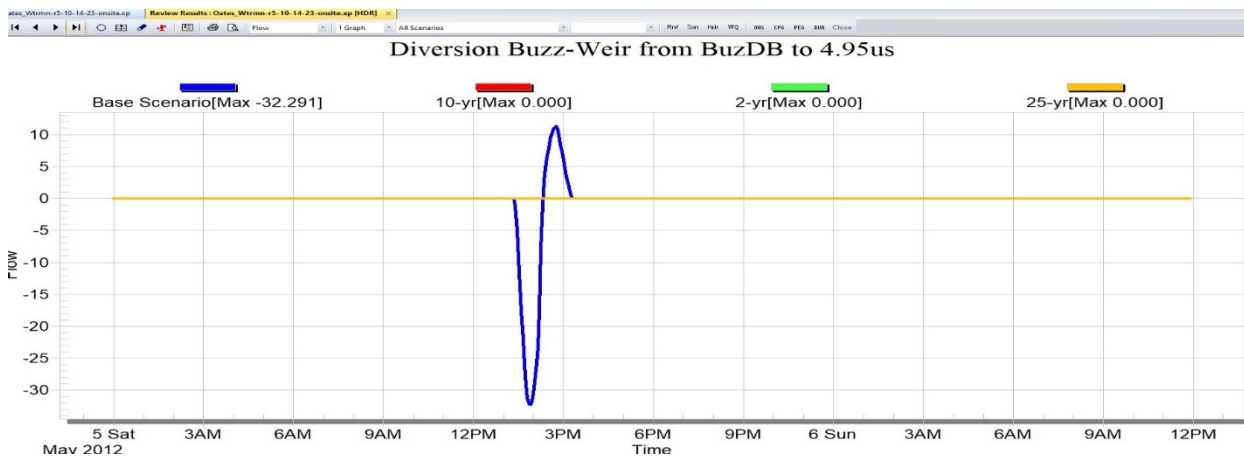


Figure 16 – Detention Basin Weir 100-year Storm Hydrograph

The private flows leaving the basin will drain into the creek mainly through the 30” pipe outfall. To maximize the offline storage that the basin can provide to Elk Grove Creek, a flap gate will be installed on the pipe outfall.

Once the peak passes in the adjacent Elk Grove Creek and the water surface levels in EGC start to decrease, the pressure will decrease and allow the flap gate to open, and pipe outflow from the basin will resume.

The use of the flap gate to encourage storage in the basin while the flows are peaking in Elk Grove Creek is exclusively designed for the purpose of providing flood storage for the region. Without the backflow or flap gate, EGC water will enter the basin at the beginning of the rise and before the peak arrives. This water that fills the basin before the peak arrives takes up valuable storage that should be used later when the peak passes.

An additional benefit is that when water level rises in Elk Grove Creek, the pressure will prevent the flap gate from opening, during which time additional sedimentation deposition from the onsite runoff will occur in the basin as the onsite flows are forced to pond. This can be seen in the hydrograph below when the flows in the 30-inch outlet pipe go to zero.

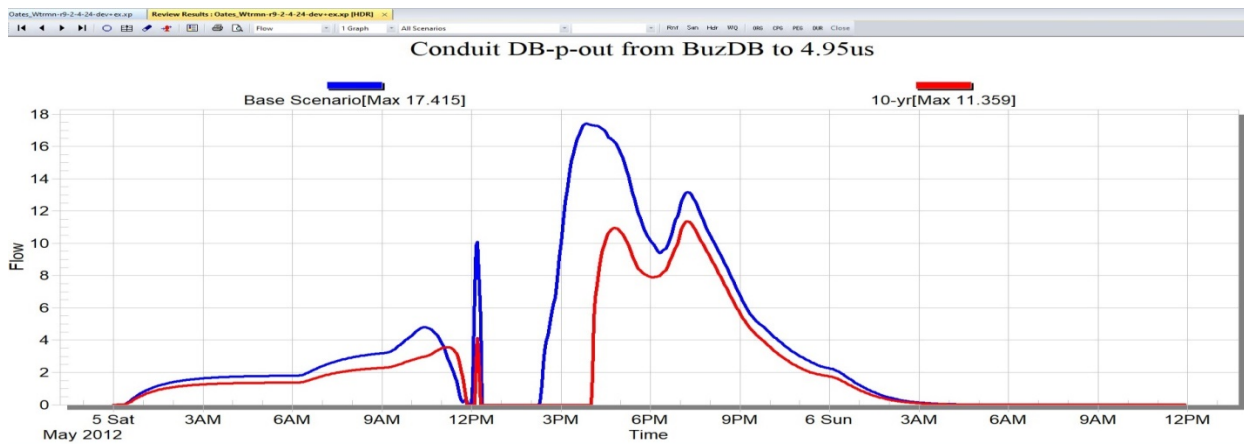
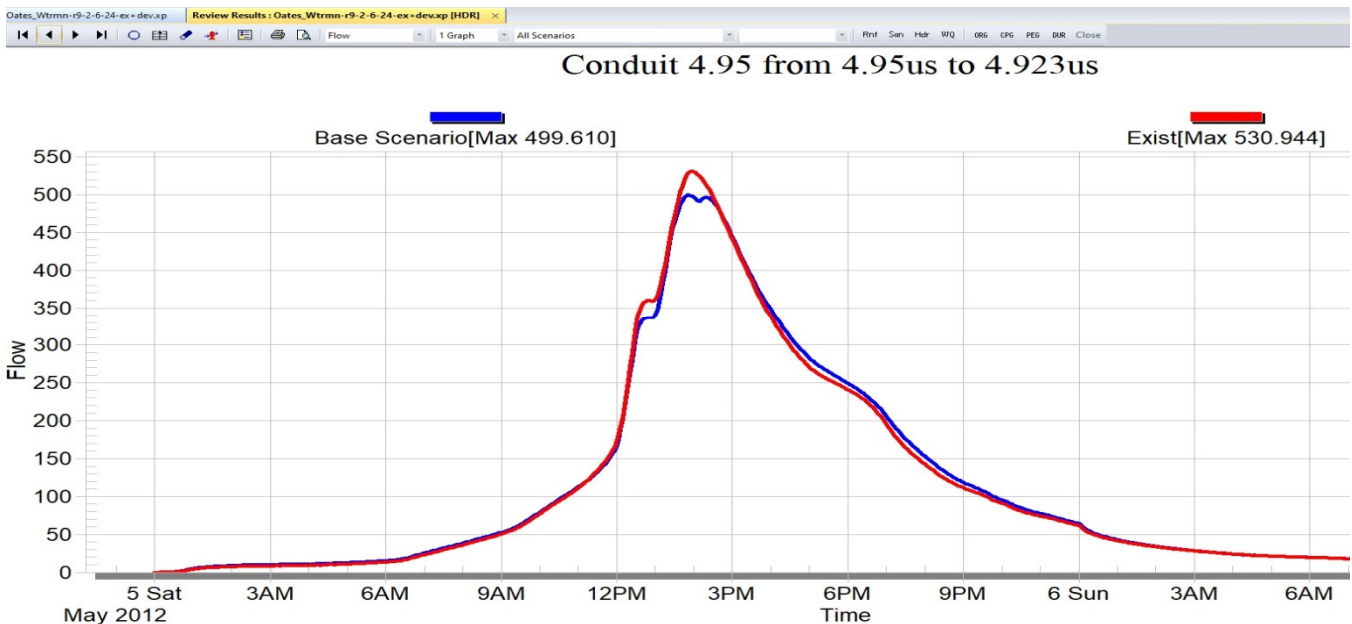
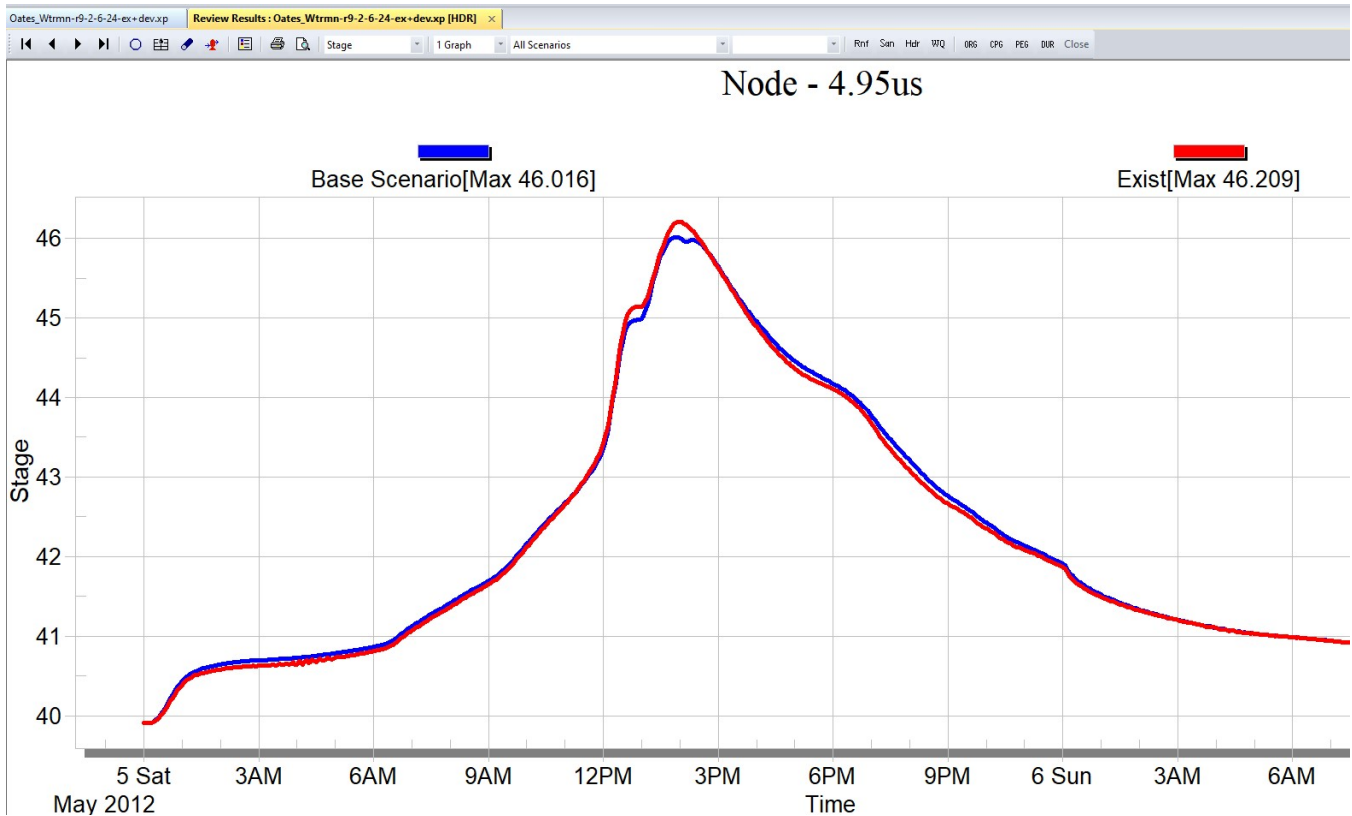


Figure 17– Detention Basin 30-inch Outfall Pipe 100-yr Storm Hydrograph

The WBLC basin reduces the Elk Grove Creek 100-year flood elevation by approximately 0.2’ in comparison to the existing conditions model. It also reduces the Elk Grove Creek channel flow by 31 cfs. See Figure 17 for the water level comparison and Figure 18 for the flow comparison.



These results are comparative within the XP SWMM modeling. The differences in the actual WEI flows compared to the flows in WYA study are the result of the modeling changes described herein.

Table 6 provides a summary and comparison of the flow and water surface elevations along Elk Grove Creek from Waterman Road downstream to the upstream side of the RR crossing. Note that the flow actually increased upstream of the WBLC basin. The reason is that there is no project-area flow entering the channel, and therefore, there is less backwater and a slight increase of capacity. At the WBKC basin, EGC flow is diverted into the basin and the downstream flow are correspondingly less.

Table 6. Elk Grove Cr-Comparison of Existing and Post project Peak Flows and Max Water Surface Elevations

Name	Scenario	Upstream Node Name	Link Name	Ground Elev ft	US Invert Elev ft	Max Water Elev(WSE) (US) ft	Dev-Exist WSE (ft)	Max Flow cfs	Dev-Exist Flow (cfs)	Max Vel ft/s	Downstream Node Name	Length ft	DS Invert Elev ft
5.313	Base Scenario	WtrmnX-ds	5.31	54	43.50	48.26	-0.02	461.2	0	4.58	5.303us	50	43.4
5.313	Exist					48.28		461.2		4.57			
5.303	Base Scenario	5.303us	5.30	54	43.40	48.25	-0.01	460.9	0.2	4.21	HudsnOF2dsCl	342	42.8
5.303	Exist					48.26		460.7		4.18			
5.303ds	Base Scenario	HudsnOF2dsCl	5.303ds	53.4	41.80	47.47	-0.04	488.3	2.4	3.27	5.229us	48	41.3
5.303ds	Exist					47.51		485.9		3.24			
5.229	Base Scenario	5.229us	5.23	52.8	41.30	47.45	-0.05	490.8	2.7	3.36	5.163us	350	40.97
5.229	Exist					47.5		488.1		3.32			
5.163	Base Scenario	5.163us	5.16	52.47	40.97	46.85	-0.09	490.6	3.4	3.21	5.147us	85	40.87
5.163	Exist					46.94		487.2		3.14			
5.147	Base Scenario	5.147us	5.15	51.2	40.87	46.79	-0.09	490.5	3.8	3.24	5.12us	140	40.99
5.147	Exist					46.88		486.7		3.17			
5.12	Base Scenario	5.12us	5.12	51.42	40.99	46.67	-0.11	490.4	4.3	3.26	5.097us	123	40.99
5.12	Exist					46.78		486.1		3.18			
5.097	Base Scenario	5.097us	5.10	52.4	40.99	46.56	-0.12	532.3	5.6	3.55	5.044us	279	40.89
5.097	Exist					46.68		526.7		3.45			
5.044	Base Scenario	5.044us	5.04	52.3	40.89	46.4	-0.14	532.2	6.4	3.57	5.025us	102	40.75
5.044	Exist					46.54		525.8		3.46			
5.025	Base Scenario	5.025us	5.03	51.41	40.75	46.29	-0.15	532	7.2	3.53	4.983us	324.3	40.2
5.025	Exist					46.44		524.8		3.39			
4.983	Base Scenario	4.983us	4.98	51.46	40.20	46	-0.19	532.1	7.9	3.38	4.95us	11.1	39.91
4.983	Exist					46.19		524.2		3.22			
4.95	Base Scenario	4.95us	4.95	51.17	39.91	46.02	-0.19	499.7	-31.3	2.94	4.923us	142	39.78
4.95	Exist					46.21		531		2.98			
4.923	Base Scenario	4.923us	4.92	50.41	39.78	45.94	-0.19	499.6	-31.3	2.89	4.9us	129	39.73
4.923	Exist					46.13		530.9		2.92			
4.9	Base Scenario	4.9us	4.90	50.53	39.73	45.85	-0.20	499.6	-31.2	3.04	4.856us	220	39.8
4.9	Exist					46.05		530.8		3.04			

In summary, the proposed WBLC basin provides more attenuation compared to the detention facility proposed by West Yost and Associates, In addition, it provides complete management of the stormwater runoff from the development site.

APPENDIX A

TOPOGRAPHIC SURVEY & PROPOSED BASIN DESIGN

OWNER/DEVELOPER:



PRELIMINARY DESIGN DOCUMENTS FOR:

WATERMAN ROAD AT BRINKMAN COURT LOGISTICS CENTER

CITY OF ELK GROVE, CALIFORNIA

approved for the owner by:

approved for the architect by:

issue	description	date
A	INITIAL PLANNING SUBMITTAL	04-29-2020

CIVIL ENGINEER & LAND SURVEYOR:



1242 DUPONT COURT MANTENCA, CA 95336 PHONE: 209.239.6229

drawn by: DB plot date: 5/4/2021

checked by: JEH

stamp

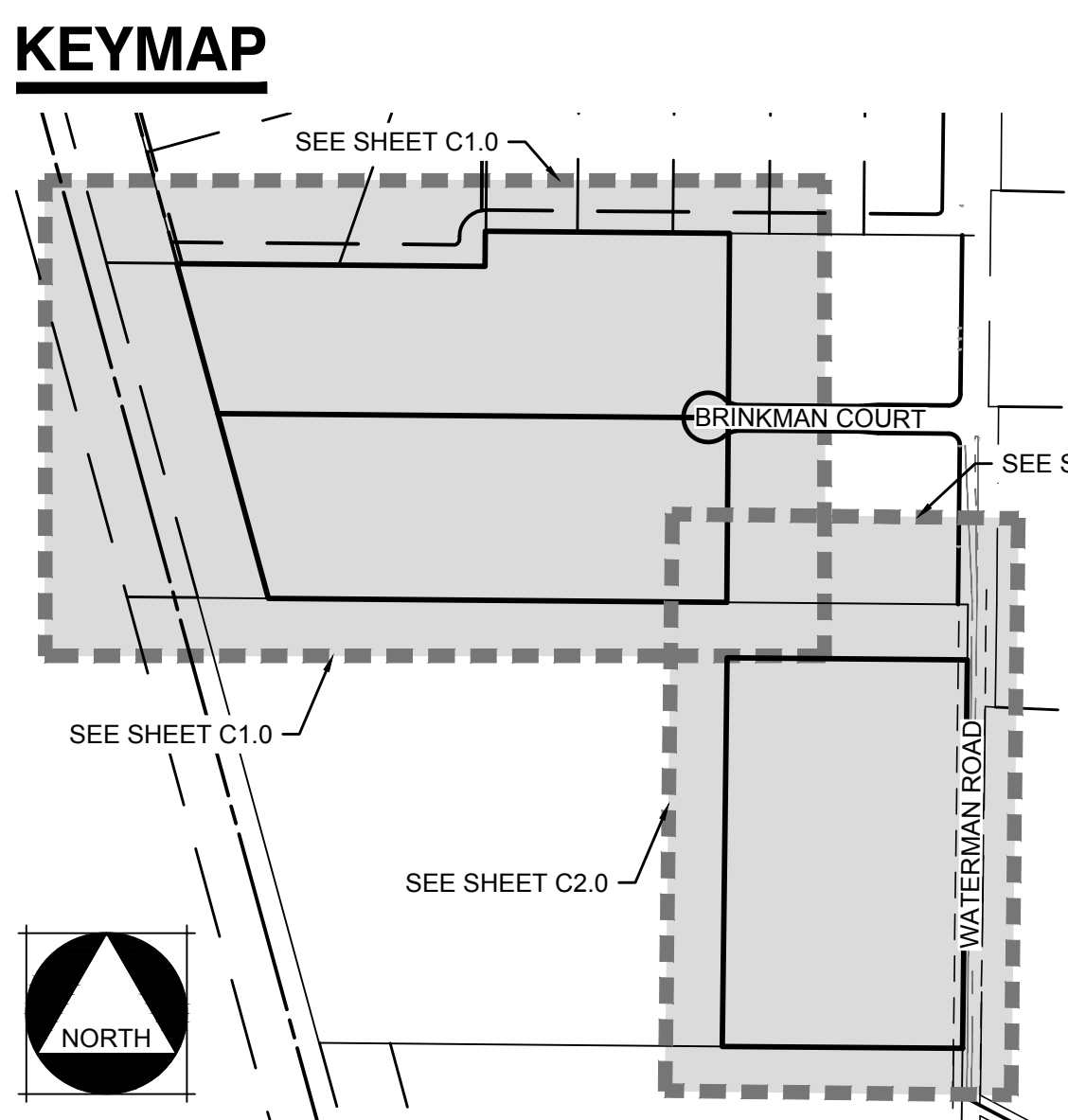
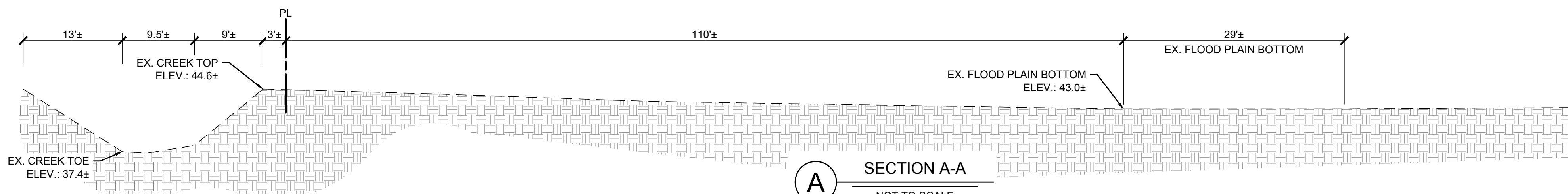
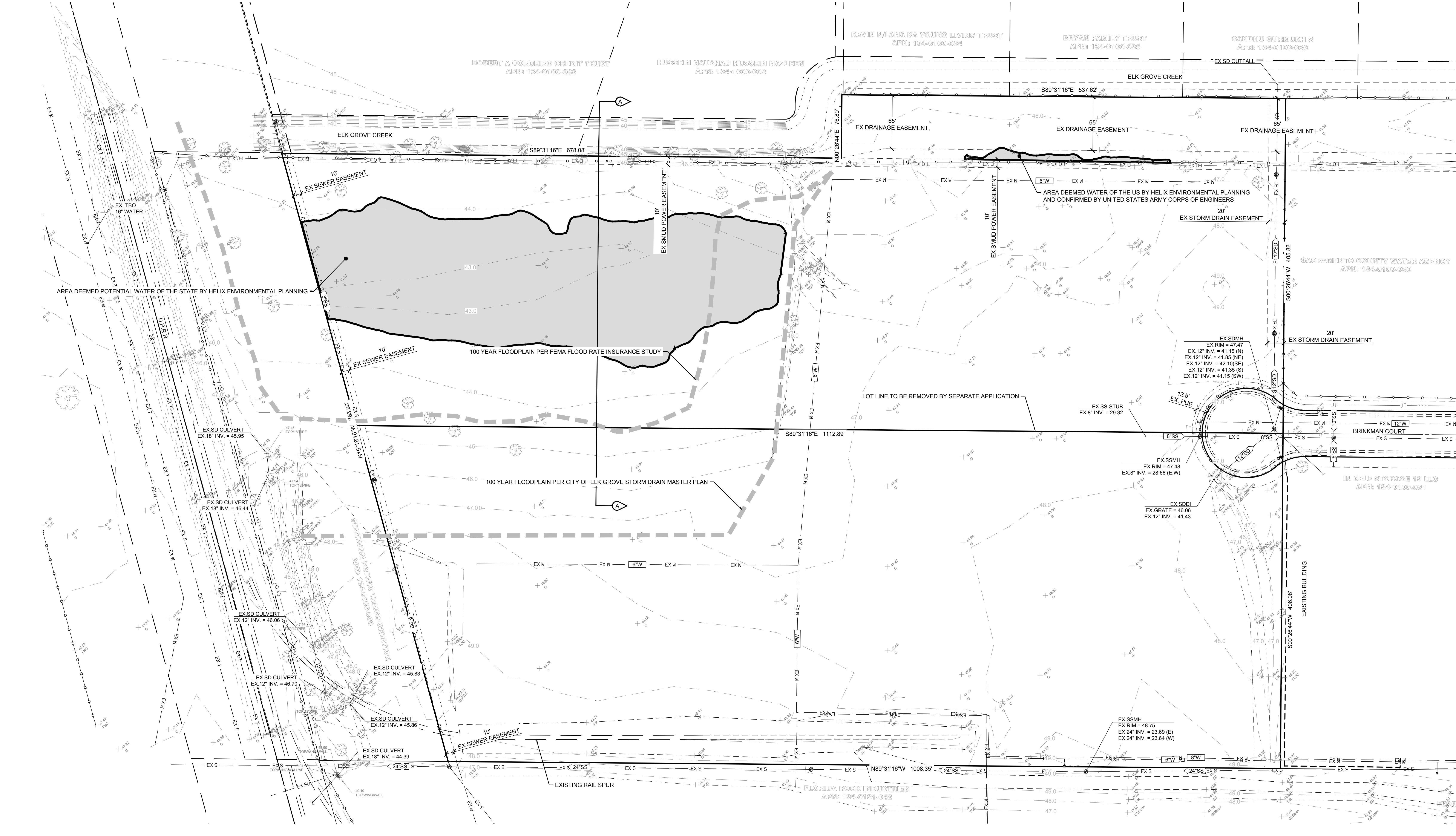


scale: AS NOTED

project number: 19-061 & 20-002

TOPOGRAPHIC SURVEY BUILDING A

sheet no.:



LEGEND

EX GRADE CONTOUR	50
WATER LINE	EX W
SANITARY SEWER	EX S
STORM DRAIN	EX SD
SEWER MANHOLE	⊙
STORM MANHOLE	⊙
DRAIN INLET	⊙
CURB INLET	⊙
WATER VALVE	⊙
AIR RELEASE VALVE	⊙
BLOWOFF	⊙
FIRE HYDRANT	⊙
TYPICAL ELECTROLIER	⊙
TYPICAL LUMINAIRE	⊙
UTILITY POLE	⊙
SIGNAGE	⊙

- NOTES**
- FLOOD ZONE: ZONE AE & ZONE X - PANEL NO. 08067C0338H
 - THIS PROPERTY HAS A GENTLE SLOPE WITH ELEVATIONS RANGING FROM 50' TO 43.1'.
 - EXISTING UTILITIES ARE BASED ON RECORD INFORMATION AND TOPOGRAPHIC SURVEY.
 - SEE LANDSCAPE PLAN FOR TREE REMOVAL INFORMATION.
 - NO EXISTING STRUCTURES WERE FOUND ONSITE.
 - NO WELLS WERE FOUND ONSITE.
 - PROJECT VERTICAL DATUM IS NGVD 29

SURVEYOR CERTIFICATION

I HEREBY STATE THAT ALL EASEMENTS AS INDICATED IN STEWART TITLE-TITLE COMPANY PRELIMINARY TITLE REPORT NO. CM-150177904-RA DATED AS OF MARCH 17, 2020 HAVE BEEN SHOWN HERON AND/OR HAVE BEEN ACCOUNTED FOR IN NOTE(S) PLACED HEREON. ALL EASEMENTS PROPOSED TO BE ABANDONED OR QUITCLAIMED AND/OR ALL EASEMENTS THAT CANNOT BE LOCATED ARE NOTED HEREON.

Douglas F. Banks
DOUGLAS F. BANKS P.L.S. 8159

NO. 8159
STATE OF CALIFORNIA

OWNER / DEVELOPER:



PRELIMINARY DESIGN DOCUMENTS FOR:

WATERMAN ROAD AT BRINKMAN COURT LOGISTICS CENTER

CITY OF ELK GROVE, CALIFORNIA

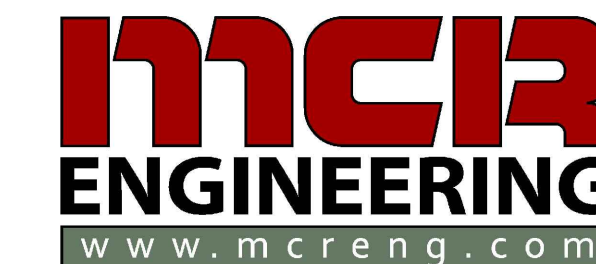
approved for the owner by:

approved for the architect by:

issue : description : date :

A INITIAL PLANNING SUBMITAL 04-28-2020

CIVIL ENGINEER & LAND SURVEYOR:



drawn by : DB plot date : 5/4/2021

checked by : JEH

stamp

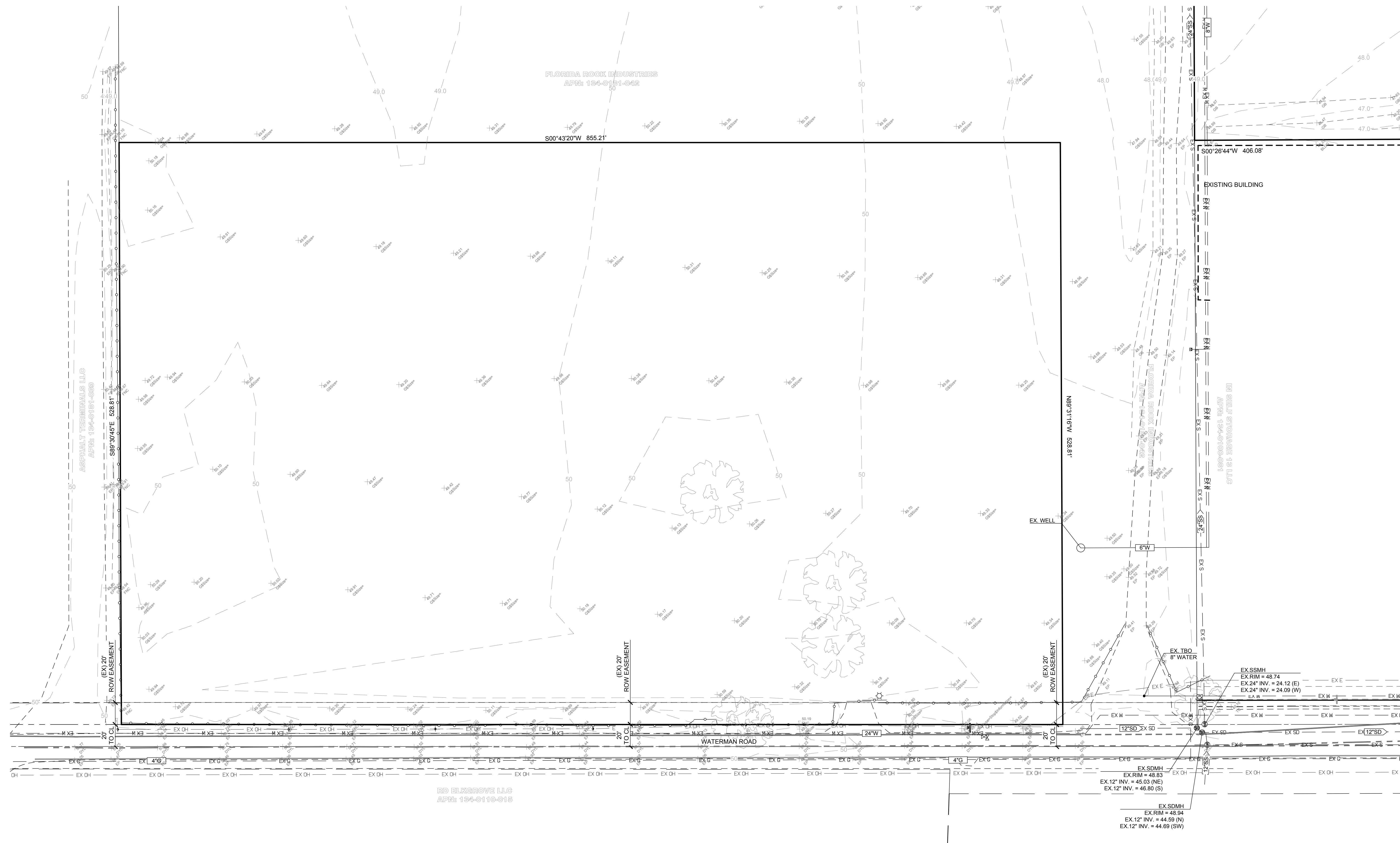


scale : AS NOTED

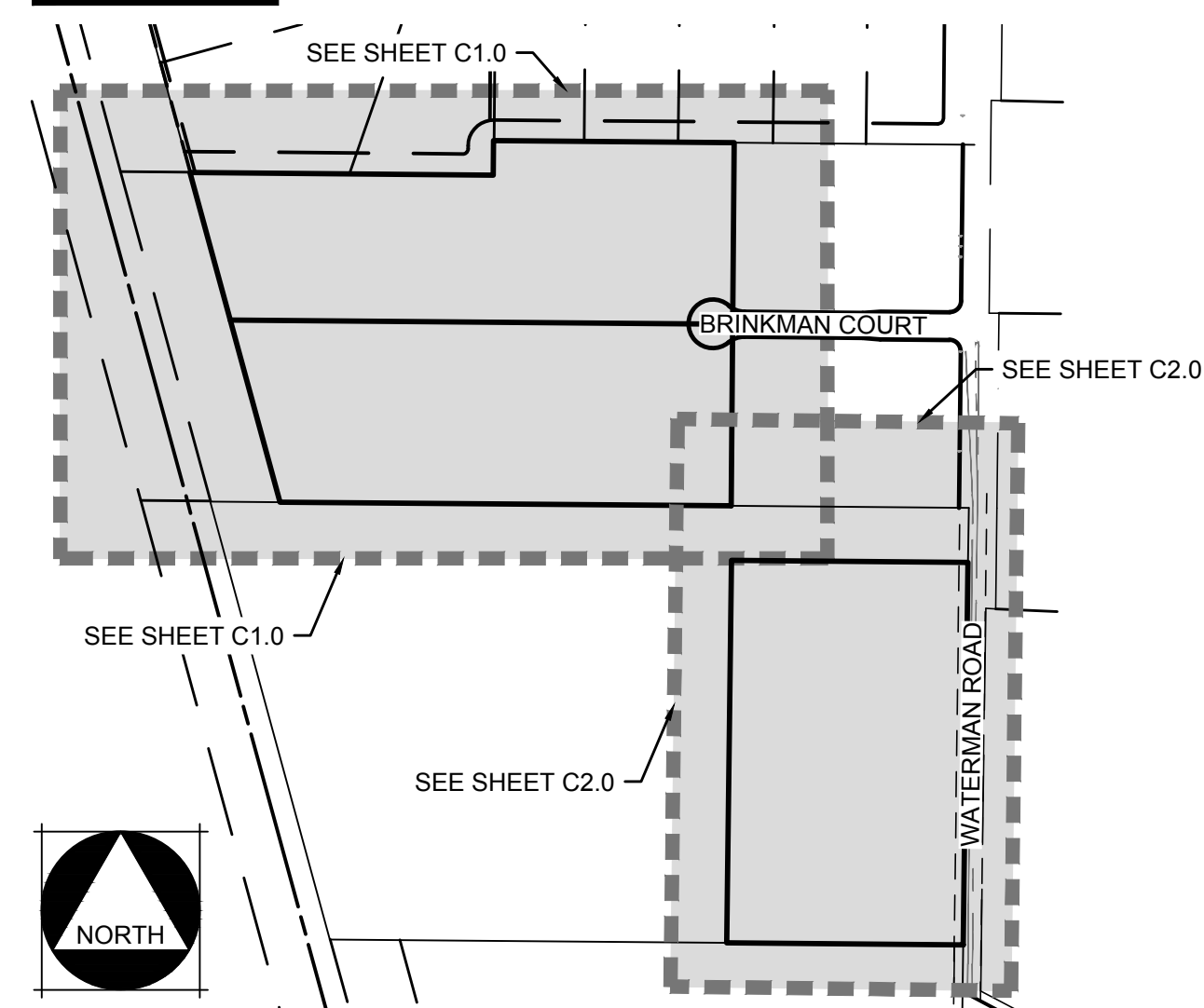
project number : 19-061 & 20-002

TOPOGRAPHIC SURVEY BUILDING B

sheet no. : C2.0



KEYMAP



LEGEND

EX GRADE CONTOUR	50
WATER LINE	1"FW EX N
SANITARY SEWER	1"SS EX S
STORM DRAIN	1"SD EX SD
SEWER MANHOLE	6"
STORM MANHOLE	6"
DRAIN INLET	6"
CURB INLET	6"
WATER VALVE	6"
AIR RELEASE VALVE	6"
BLOWOFF	6"
FIRE HYDRANT	6"
TYPICAL ELECTROLIER	6"
TYPICAL LUMINAIRE	6"
UTILITY POLE	6"
SIGNAGE	6"

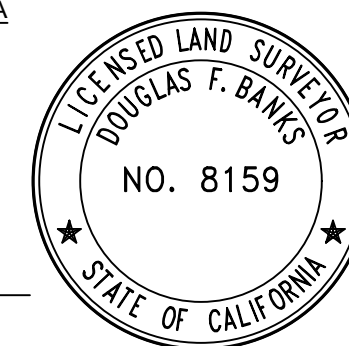
NOTES

- FLOOD ZONE: ZONE AE & ZONE X - PANEL NO. 06067C0338H
- THIS PROPERTY HAS A GENTLE SLOPE WITH ELEVATIONS RANGING FROM 50' TO 48'.
- EXISTING UTILITIES ARE BASED ON RECORD INFORMATION AND TOPOGRAPHIC SURVEY.
- SEE LANDSCAPE PLAN FOR TREE REMOVAL INFORMATION.
- NO EXISTING STRUCTURES WERE FOUND ONSITE.
- NO WELLS WERE FOUND ONSITE.
- PROJECT VERTICAL DATUM IS NGVD 29

SURVEYOR CERTIFICATION

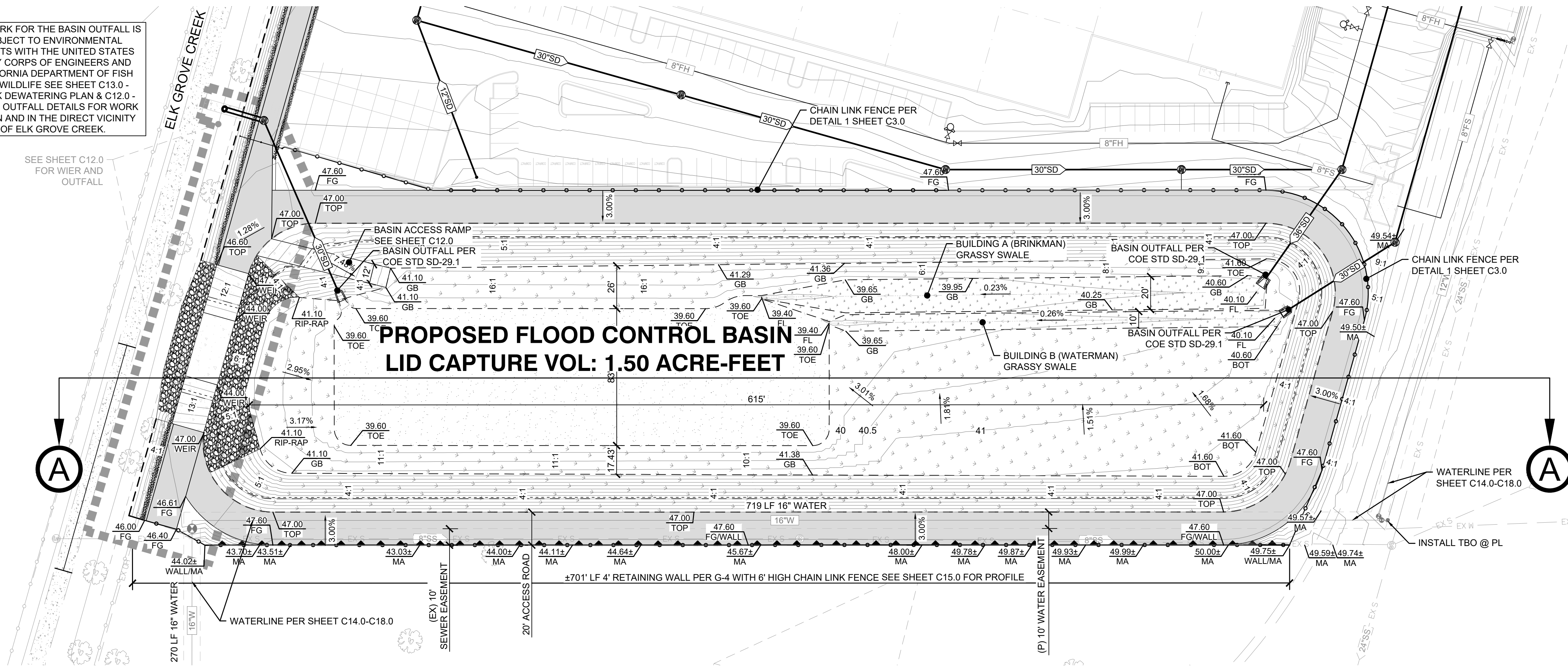
I HEREBY STATE THAT ALL EASEMENTS AS INDICATED IN STEWART TITLE COMPANY PRELIMINARY TITLE REPORT NO. CM-150177906-RA DATED AS OF MARCH 17, 2020 HAVE BEEN SHOWN HEREON AND/OR HAVE BEEN ACCOUNTED FOR IN NOTE(S) PLACED HEREON. ALL EASEMENTS PROPOSED TO BE ABANDONED OR QUITCLAIMED AND/OR ALL EASEMENTS THAT CANNOT BE LOCATED ARE NOTED HEREON.

Douglas F. Banks
DOUGLAS F. BANKS P.L.S. 8159



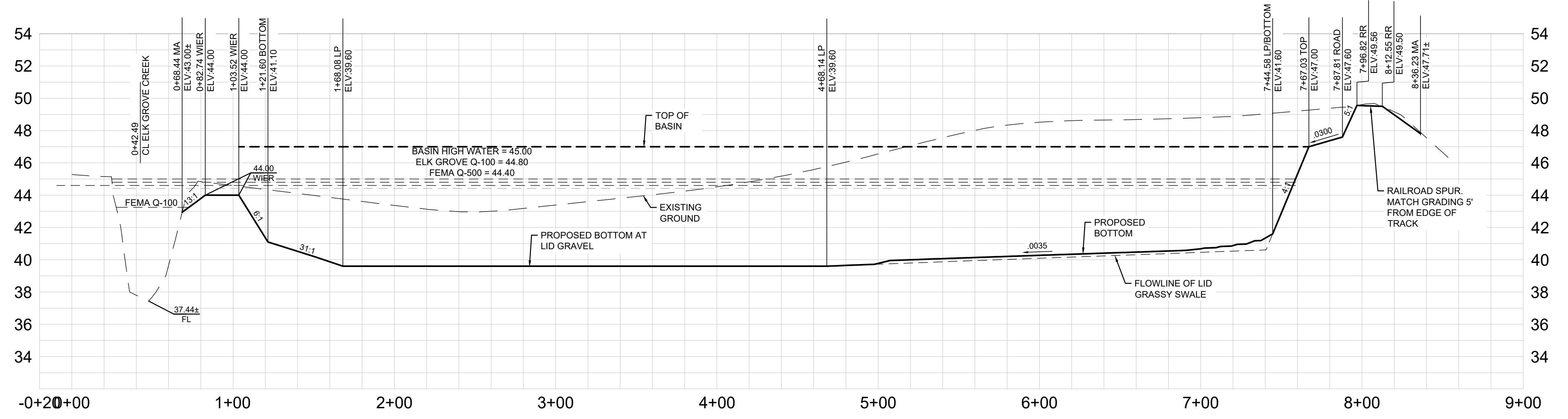
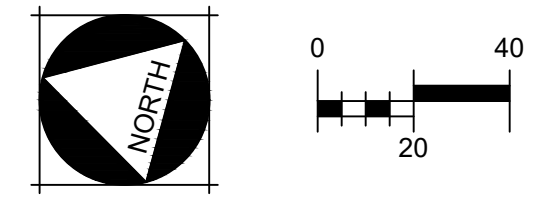
ALL WORK FOR THE BASIN OUTFALL IS SUBJECT TO ENVIRONMENTAL PERMITS WITH THE UNITED STATES ARMY CORPS OF ENGINEERS AND CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE SEE SHEET C13.0 - CREEK DEWATERING PLAN & C12.0 - WEIR & OUTFALL DETAILS FOR WORK WITHIN AND IN THE DIRECT VICINITY OF ELK GROVE CREEK.

SEE SHEET C12.0 FOR WEIR AND OUTFALL



STORM DRAIN BASIN

- PAVEMENT SECTIONS:**
- BASIN ACCESS ROAD**
3.0" A.C OVER 10.0" A.B. OVER 12" 90% COMPACTED SUBGRADE
 - CONCRETE:**
• 6.0" PCC OVER 6.0" A.B. OVER 12" 90% COMPACTED SUBGRADE
• 6x6x10 WWM (MAT ONLY) PER APRON DETAILS ON STD SD - 26
 - FLOOD CONTROL BASIN**
 - LID BASIN (GRAVEL & MEDIA)**
 - LID GRASSY SWALE (FESCUE & MEDIA)**
 - ACCESS ROAD PAVING**
3.0" A.C OVER 10.0" A.B. OVER 12" 90% COMPACTED SUBGRADE
 - RIP RAP***
18" DEEP 12" CLASS III RIP RAP
RIP RAP TO BE ENCLOSED IN MIRAFI 140 FABRIC OR EQUAL ON ALL SIDES



PROFILE A

MCR ENGINEERING
www.mcreng.com
1242 DUPONT COURT
MANTECA, CA 95336
TEL: (209) 239-6229
FAX: (209) 239-8839

REGISTERED PROFESSIONAL ENGINEER
No. C54088
Exp. 12-31-23
CIVIL
STATE OF CALIFORNIA

APPROVED:

NO.	DESCRIPTIONS	PLAN REVISIONS	
		INIT.	DATE
A			

IMPROVEMENT PLANS FOR:
BRINKMAN FLOOD IMPROVEMENTS & WATER LINE

BASIN PLAN

ELK GROVE, CA
9195 BRINKMAN CT.

811
Know what's below.
Call before you dig.
811 / 800-227-2600

JOB NO.: 20-002
DATE: 10/18/2023
SCALE: AS SHOWN
DR. BY: JEH/RBP
CK. BY: DE

SHEET NO.
C11.0
OF 15 SHEET

APPENDIX B

RANEY GEOTECHNICAL REPORT

GEOTECHNICAL INVESTIGATION
BRINKMAN AND WATERMAN DEVELOPMENT
Brinkman Court and Waterman Road
Elk Grove, California

RANEY GEOTECHNICAL INC. JOB NO. 146-538





June 10, 2016

Buzz Oates Development LP
Attention: Cybil Bryant
555 Capitol Mall, Ninth Floor
Sacramento, CA 95814

**GEOTECHNICAL INVESTIGATION
BRINKMAN AND WATERMAN DEVELOPMENT**

Brinkman Court and Waterman Road
Elk Grove, California
Job No. 146-538

INTRODUCTION

Our firm has completed a Geotechnical Investigation for a proposed industrial park development on Waterman Road at Brinkman Court in Elk Grove. The purposes of this investigation have been to evaluate surface and subsurface soil and groundwater conditions, provide recommendations for current rough grading of the property, and provide recommendations for future use in design and construction of building foundations and pavements. This report presents the results of the investigation. Raney Geotechnical performed investigations for two previously proposed developments on the site in 1992 and 2004.¹² Information from these previous investigations has been used in the preparation of this report.

Sixteen test pits extending to depths varying from varying from about two and one-half to 15 feet were excavated on the site as part of the referenced 1992 study. Fifteen test borings extending to depths of 15 to 20 feet and one boring to a depth of 50 feet were drilled on the site for the referenced 2004 investigation. To supplement this soils information, an experienced engineer has visited the site to observe current surface conditions and sample the surface soils. The test pit, boring and sampling locations are shown on Plate 1, *Plot Plan*.. Descriptions of the materials observed in the test pits and borings are shown on Plates 2 through 14, *Log of Test Pit*, and Plates 15 through 30, *Log of Boring*. The nomenclature used to describe the soils on the logs is defined on Plate 31, *Unified Soil Classification System*. Moisture, density and unconfined compressive strength test data are presented on the logs at

¹Raney Geotechnical; "Geotechnical Consulting, Kingsford Products Property, 10000 Waterman Road, Elk Grove, California"; June 1, 1992; Job No. 877-001.

²Raney Geotechnical, Inc.; "Status Report, James Hardie Distribution Center, 10000 Waterman Road, Elk Grove, California"; March 10, 2004; File No. 2462-001.

the depths of each sample tested. Atterberg Limits tests were performed on two samples of near surface soils for classification purposes, a Resistance value test was performed on one sample for evaluating pavement support properties, and treated soil compressive strength tests were performed on three samples to evaluate treatment effectiveness, all as part of the 2004 work. These test results are reproduced on Plate 32, *Atterberg Limit Data*; Plate 33, *Resistance Value Data*, and Plate 34, *Treated Soil Compressive Strength Data*. Samples of disturbed soils and fills on the surface of the site were recently obtained by our engineer and subjected to tests to measure the organic content of the soils; these test results are tabulated on Plate 35, *Organic Content Data*.

PROPOSED CONSTRUCTION

We understand it is planned to rough grade the property for drainage and prepare areas for future industrial development. Grading plans indicate that maximum cuts of about three and one-half feet will be required on the south central portion of the property to encourage drainage towards swales exiting towards the rail alignment on the west side. Fills of up to two feet will be placed on the northerly portion of the property.

Future development is expected to include subdividing the property for warehouse and similar construction. The new buildings would be primarily of single story concrete tilt-up panel or metal construction with concrete slab-on-grade floors. Structural foundation loads are expected to be moderate and common to this type of construction. For the purposes of this report we have assumed that building floor levels will be near the existing site grades. Additional improvements would include pavements for automobile/truck parking and access.

SITE CONDITIONS AND CONCLUSIONS

SURFACE

The approximate 52-acre site is bordered by Waterman Road, Brinkman Court, an Elk Grove Water District facility (9960 Waterman Road) and a self storage facility (Waterman Self Storage, 9200 Brinkman Court) on the east, Elk Grove Creek and industrial development off Kent Drive on the north, railroad tracks and vacant land on the west, and an Alon Asphalt Company terminal on the south.

The northerly two-thirds of the property was occupied by Kingsford Products from about 1966 until sometime in the late 1980's. We understand the property was used for manufacture of match-light charcoal. Most of the more industrial elements of the Kingsford facility appear to have been located on the central-west portion of the property. The facilities included buildings which have since been demolished as well as asphalt concrete paved parking and driveways off Waterman Road that partially remain. Two rail spurs off the westerly property line trend easterly on the central west portion to about half way across the property. The northerly rail spur is mostly embedded in asphalt concrete. The southerly spur has exposed rails on wood ties and ballast. Historical aerial photos indicate the areas northerly and westerly of the buildings were mostly used for bulk storage of raw materials. The

northwesterly corner appears to have been used as a detention pond and is up to a few feet lower than surrounding areas. Chainlink fencing encloses most of the former Kingsford site. Earthen berms were along portions of the property near Waterman Road. Concentrations of gravel, remnants of asphalt concrete and concrete slabs, are present in the former Kingsford building areas. Outside the former building areas, the surface soils appear fluffy/disturbed and are embedded with gravel, cobbles and rubble. Close examination shows significant amounts of charcoal chunks are also mixed into the surface soils. The gray cast and fluffiness of the soils also suggests that there are significant amounts of charcoal dust or other organic material mixed in. In the detention pond area, we observed significant amounts of decaying fruit pits mixed into the surface soils.

A 1937 photo suggests all of the property once supported orchards. More recent aerial photos indicate the southerly third of the property was separate from the operating Kingsford facility. It appears a house was present on the northeasterly corner of this area, and remaining areas appear to have been pasture or undeveloped fields. This southerly third is now relatively flat and, except for some tumbleweeds, is mostly devoid of surface vegetation. Some gravel, cobbles and rubble are mixed into the surface soils or spread with soils as a thin fill on the surface. The westerly portion appears to be covered with up to a foot of fill. Fruit pits also are visible on the surface. The debris/cobbles and fills suggest some of the soils from the Kingsford site may have been spread on the surface of the southerly portion. A few tree remnants are visible in the former house area at the northeast corner. Wire fences are along Waterman Road, the easterly half of the southerly property line, and along the Union Pacific rail alignment. A chain link fence separates the site from the asphalt facility on the west half of the property line.

SUBSURFACE

The test borings drilled on the southerly portion of the property encountered soil profiles that appear to be typical for the native undisturbed soils on the site. The test pits completed on the northerly Kingsford portion of the property encountered similar undisturbed soils, except that the near surface materials have often been disturbed and altered by the previous site uses.

The undisturbed soil profile appears to generally consist of two to five feet of stiff to very stiff, light brown to brown fine sandy clayey silts and silty fine sandy clays on the surface, and overlying dense and variably cemented orange-brown to gray-brown fine sandy silts, silty sands, silty sandy gravels, and silty clays.

Our observation indicates that on the southerly portion of the site, the upper six to 12 inches of soils have been disturbed by discing. On the northerly former Kingsford area, most surface soils are disturbed to depths on the order of one foot or more by the previous site operations. On most areas east of the former building complex and ponds, this disturbance appears to be the mixing of soils and spreading of loose fills that include lumps of charcoal, charcoal dust and other organic materials, as well as gravel, cobbles and some rubble. These disturbed soils generally appear to be limited to the upper foot or two of the profile. At the pond area on the northwesterly portion of the Kingsford area, test pits and recent hand excavation revealed two to four feet of disturbed soils and fills. These fills included silts mixed with decaying fruit pits on the surface, and deeper layers containing high concentrations of charcoal.

The surface in the former building area of the Kingsford facility is uneven with scattered rubble and mounds of gravel visible. Test pits and surface observations suggest disturbance in this area may generally be on the order of two feet, but charcoal/gravel contamination may be less than on other areas. An exception is west of the former building complex and on the east side of the south rail spur. Test Pits 8 and 9 in this area encountered charcoal and charcoal residue to depths of 13 feet or more. This suggests a former waste pit was in this area.

BEARING CAPACITY AND MATERIALS SUITABILITY

Loose existing fill materials and disturbed soils are indicated to be spread on the surface on much of the site. In most areas these loose and disturbed soils extend to depths on the order of one to two feet. On the former Kingsford facility and the westerly area of the southerly portion, much of these disturbed soils include concentrations of decaying or potentially decaying organic matter. Two to four feet of loose materials were observed in the detention pond area on the northwest corner. An apparent former waste pit on the central west edge of the property has charcoal-laden fill to depths of 13 feet or more. The disturbed soils are not considered suitable for support of building or pavement construction in their present condition. We recommend the disturbed soils in building and pavement areas be overexcavated and replaced with compacted engineered fill.

Soils with concentrations of organic materials (charcoal and fruit pits) are not recommended for support of buildings or floor slabs. We recommend such high organic content soils be overexcavated from beneath building footprints and replaced with engineered fills composed of only of inorganic native soils or imported fill. Most of the disturbed surface soils on the site are sands, silts and clays mixed with smaller amounts of organic materials; such soils are suitable for reuse as engineered fills, but only in pavement and landscaping areas. Fills with very high concentrations of charcoal and fruit pits were observed in the detention pond area as well as the apparent waste pit on the central-west edge. Such materials should not be used as engineered fill.

Beneath the existing fills and disturbed soils, the native undisturbed soils are indicated to have strength and compressibility properties that are favorable for support of the planned construction. The undisturbed surface soils as well as new engineered fill placed and compacted in accordance with our recommendations, are expected to be capable of supporting pavements, floors, and light to moderately loaded foundations.

EXPANSIVE SOILS

The native near surface soils consist primarily of both low plasticity silts and moderate to high plasticity clays. The silts are of low swelling potential. The clays are capable of developing significant expansion pressures with variations in moisture content. Most surface soils on the Kingsford area consist of silts. Clays are the dominant surface soil type on the southerly portion. With the redistribution of soils that will occur during grading, we expect that most building areas on the former Kingsford site will be silts; and most building areas south of the Kingsford site will be clays. The clays will cause some movements of floor slabs, flatwork and pavements, and may affect foundations. Expansion effects on foundations can be reduced by extending the depth of foundations to bear on subsurface variably cemented soils.

Several procedures are commonly used for reducing expansive soil effects on floor slabs, including the construction of building pads using imported nonexpansive soils; reinforcement of floor slabs and preswelling of subgrade soils by saturation of the building pad prior to concrete placement; and chemical treatment of clays to alter their expansive properties. Chemical treatment has been used for many warehouse building pads in the area, and is recommended for building pad construction on this project. Treatment of floor subgrades to depths of 12 inches has produced significant reductions in expansive soil movements, but some floor movement still can occur. Details regarding treatment procedures are recommended in the Earthwork section below.

GROUNDWATER

Groundwater was not encountered in the test borings and pits completed on site. Sacramento County groundwater maps indicate the permanent groundwater table is at depth on the order of 80 feet or more. Based on this information the permanent groundwater table is not expected to be a factor in design or construction.

During and shortly following the wet season, surface water can become perched on top of the relatively impermeable clays and cemented soil layers, forming a seasonal shallow water table and saturating the surface soils. High moisture content soils can be unstable under earthwork equipment and may require considerable aeration in order to achieve a moisture content which will allow compaction. Foundation, utility or other construction excavations attempted during or shortly following the wet season may experience perched water inflow. In swale areas high soil moisture contents may persist into the summer months. The potential for perched water and high soil moisture conditions should be considered in construction scheduling.

SOIL LIQUEFACTION POTENTIAL

Soil liquefaction is the loss of strength of low- to no- cohesion soils (usually sands) that occurs when pore water pressure exceeds the confining stress (weight) of the soils. Liquefaction normally occurs only under saturated conditions and in soils with a low relative density. Liquefaction can occur during earthquakes as vibrations induce soils to readjust to a more compact state. Experience has shown that earthquake induced liquefaction normally occurs only within the upper 50 to 60 feet of the soil profile.

Our test borings show that soils to depths of more than 50 feet consist primarily of dense and variably cemented silts, sands, and clays. Considering the density of the soils and the lack of groundwater within the upper 60 feet of the soil profile, seismic induced liquefaction is not expected to occur on this site.

RECOMMENDATIONS

EARTHWORK

Earthwork is expected to include current rough grading of the property for proper drainage, and future detail grading for construction of buildings, pavements, and other improvements. As noted above,

significant amounts of disturbed and organics-laden soils are present on the property that will require overexcavation and replacement or recompaction in preparation for support of buildings and pavements. It would not be practical to remove unsuitable organic soils from building footprints when the future location of buildings is not known; and it is not necessary that the recompaction operations be performed as a part of rough grading.

The following earthwork recommendations have been split into recommendations for present rough grading and recommendations for future grading of building and pavement areas. In these recommendations, the removal and recompaction operations of the existing disturbed soils are reserved for the future building earthwork. It should be recognized that this may result in some fills that are placed during rough grading, being removed and reworked during final lot and building pad grading.

To reduce future rework, it may be desirable and is acceptable to modify these recommendations to include overexcavation and recompaction as part of the preparation of rough grading fill areas.

Rough Grading

Areas designated to receive engineered fill should be cleared of surface vegetation, unwanted fences, asphalt concrete, concrete slabs, rubbish, rocks and rubble pieces exceeding six inches in maximum size, soil stockpiles, and any other existing construction or debris. Swales, ditches, and low areas to be filled should be cleaned out of any loose or saturated materials. Any underground pipes within two feet of original or final grade (whichever is lower) should be removed. Any abandoned pipes greater than two inches in diameter as well as any associated trench backfills should be removed regardless of depth. Excavations resulting from the removal of the above items, as well as any other disturbed or undesirable materials designated by our representative should be cleaned out to firm, undisturbed soils and sloped back to a dish-shaped configuration allowing through passage of earthwork equipment. Excavations extending below the planned finished grade level should be backfilled with engineered fill placed and compacted in accordance with the following recommendations.

Areas designated to receive engineered fill should be scarified to a depth of eight inches, brought to a uniform over-optimum moisture content, and compacted to at least 90 percent of the maximum dry density as determined by the ASTM D1557-02 test procedure. Engineered fill should be placed in lifts not exceeding six inches in compacted thickness, brought to a uniform over-optimum moisture content, and compacted to at least 90 percent of the ASTM D1557-02 maximum dry density. On site soils, including existing fills, are suitable for use as engineered fill provided they are processed to remove significant vegetable matter, wood, rock and rubble pieces exceeding six inches in maximum dimension, rubbish, or other undesirable substances. Imported fill materials should be reviewed and approved by our firm prior to importation to the site.

Permanent excavation and embankment slopes should not exceed an inclination of one vertical on two horizontal. A representative of this firm should be present during grading operations to test and observe earthwork construction.

Future Building and Pavement Grading

General clearance of new construction areas should include the removal of unwanted fences, rails, ties, ballast, and any other unwanted structures or foundations. Any surface vegetation should be removed, along with rubbish, rocks and rubble pieces exceeding six inches in maximum size, soil stockpiles, and any other existing construction or debris. Swales, ditches, and low areas to be filled should be cleaned out of any loose or saturated materials. Any underground pipes within two feet of original or final grade (whichever is lower) should be removed. Any abandoned pipes greater than two inches in diameter as well as any associated trench backfills should be removed regardless of depth.

An apparent waste pit was encountered at Test Pits 8 and 9. Exploratory excavations should be made in these areas to define the limits of the pit and remove organic and other waste materials. Organic and waste materials should be removed from the site.

Excavations resulting from the removal of the above items, as well as any other disturbed or undesirable materials designated by our representative should be cleaned out to firm, undisturbed soils and sloped back to a dish-shaped configuration allowing through passage of earthwork equipment. Excavations extending below the planned subgrade level should be backfilled with engineered fill placed and compacted in accordance with the following recommendations.

All existing fill materials and disturbed soils in building and pavement areas should be overexcavated to expose firm undisturbed soils. Within the footprint of each building, defined as extending to five feet outside of building lines, the overexcavated soils should be removed from the building area and not reused in building area fills. The existing fill materials removed from building areas may be reused as engineered fill in pavement and landscape areas, provided the organic materials are not highly concentrated. Layers and pockets of dark colored concentrated charcoal or charcoal dust should not be mixed with surrounding materials, but should be removed from the site. Our representative should be present during site clearance to verify that undisturbed soils are exposed and that the removed soils are suitable for reuse as engineered fill.

Areas designated to receive engineered fill as well as building pad and pavement subgrades which are completed in excavation or left at existing grade should be scarified to a depth of eight inches, brought to a uniform over-optimum moisture content, and compacted to at least 90 percent of the maximum dry density as determined by the ASTM D1557-02 test procedure. Engineered fill should be placed in lifts not exceeding six inches in compacted thickness, brought to a uniform over-optimum moisture content, and compacted to at least 90 percent of the ASTM D1557-02 maximum dry density.

On site soils that do not contain highly concentrated organic materials, are suitable for use as engineered fill in pavement and landscape areas. Native inorganic soils are suitable for use as engineered fill in building areas as well as in pavement and landscape areas. All fill materials should be processed to remove significant vegetable matter, wood, rock and rubble pieces exceeding six inches in maximum dimension, rubbish, or other undesirable substances. Fills placed in building pad areas should not contain rock or rubble pieces exceeding three inches in maximum size. Imported fill materials should

be reviewed and approved by our firm prior to importation to the site.

To enhance slab performance, reduce soil expansion, and provide a more stable base for working during the rainy season, the upper portion of the building pads and any adjacent concrete flatwork areas should be treated with a combination of lime and cement. The treatment should extend at least five feet outside of building wall lines, or to the outer edges of surrounding portland cement concrete walkways or aprons, whichever is greater in extent. We recommend treatment to a depth of at least 12 inches. Treatment may be extended to greater depths if a higher level of performance is desired. As a minimum, the soils should initially be treated to a depth of 12 inches with at least three percent high calcium quicklime as measured by dry unit weight of the compacted soil. The treated soil should be brought to a uniform over optimum moisture content, thoroughly mixed with the lime, and lightly compacted to seal the surface. The lime/soil mixture should then be allowed to cure for a minimum of 16 hours but no more than three days prior to addition of portland cement. Prior to final compaction, the lime treated soil should be treated with at least four percent portland cement, as measured by dry unit weight of the compacted soil. The lime/cement treated soil mixture then should be brought to a uniform over-optimum moisture consistency, thoroughly mixed and recompact to at least 92 percent of the maximum dry density determined by the ASTM D1557-02 test procedure. Not more than three hours should elapse between the time the cement is mixed with the soil/water and final compaction is completed. The above concentrations of lime and cement are based on assumptions made regarding the soil composition of the upper 12 inches of the building pad. Some modifications to these concentrations may be required. The actual percentages of lime and cement to be used should be established by our engineers based on a review of the types of soils present on each area to be treated. Treatment should conform to applicable provisions of the Caltrans Standard Specifications, Sections 24 and 27. The treated pad should either be kept wet for a period of at least three days after compaction or seal coated.

Untreated pavement subgrades should be compacted to at least 90 percent of the ASTM D1557-02 maximum dry density regardless of whether the final grade is achieved by cutting, filling or is left at original grade.

Permanent excavation and embankment slopes should not exceed an inclination of one vertical on two horizontal. A representative of this firm should be present during grading operations to test and observe earthwork construction.

FOUNDATIONS

The proposed buildings may be supported upon continuous and/or isolated spread foundations bearing in the dense and variably cemented soils indicated to be present below depths varying from about two to five feet below the existing site grades. The foundations should be extended to the depth necessary to bear on the cemented soils; foundation excavations should be observed by an Engineer from this office to verify that proper cemented soils are engaged. Foundations bearing in the cemented soils should maintain a minimum depth of 24 inches below the building pad or lowest surrounding subgrade level (whichever is lower). Unreinforced lean concrete may be used to backfill the deepened portions of foundation excavations. Lean concrete for this purpose should have a minimum strength at 28 days of 1000 pounds per square inch.

Foundations constructed as recommended above may be designed for maximum allowable bearing pressures of 6000 pounds per square foot (psf) for dead plus live load, or 8000 psf for total load, including the effects of either wind or seismic forces. A minimum foundation width or diameter of 24 inches, allowing for cleaning, should be maintained. The weight of foundation concrete below grade may be disregarded in sizing computations. Foundation excavations should not be allowed to stand open for extended periods prior to concrete placement. Unformed foundation excavations are expected to stand open without significant sloughing or raveling.

Signs, fences, trash enclosures, or other light appurtenant construction or equipment may be supported on continuous or isolated spread foundations based in undisturbed soils, engineered fill, or a combination of these materials. These foundations should be based at a minimum depth of 18 inches below the lowest surrounding subgrade level. Such foundations may be sized for maximum allowable bearing pressures of 3000 psf for dead plus live load, and 4000 psf for total load.

Resistance to lateral forces may be computed using a passive earth pressure equivalent to that exerted by a fluid weighing 300 pounds per cubic foot. This pressure may be considered to act against one and one-half times the projected diameter of drilled shafts. The sliding resistance of footings may be computed using a friction factor of 0.32 acting on the bottoms of footings. A soil-concrete adhesion value equivalent to 50 pounds per square foot per foot of depth along the sides of footings may be used in computation of lateral and uplift load resistance. The recommended passive pressure and friction values have been modified by appropriate factors of safety and may be applied directly in design calculations.

Foundation excavations should be clean of slough and should be pumped free of significant water when concrete is placed.

SEISMIC DESIGN

In design using the lateral force provisions of the 2013 California Building Code, the parameters in Table 1 may be used.

TABLE 1

Period (seconds)	Mapped Spectral Response Accelerations (g)		Site Class	Site Coefficients		Maximum Considered Earthquake Spectral Response Accelerations (g)		Design Spectral Response Accelerations (g)	
0.2	S_s	0.651	D	F_a	1.279	S_{MS}	0.833	S_{DS}	0.555
1	S_1	0.284		F_v	1.832	S_{MI}	0.520	S_{DI}	0.347

LOADING DOCK WALLS

Restrained dock walls should be capable of resisting an at-rest soil pressure equivalent to that exerted by a fluid weighing 50 pounds per cubic foot. Wall design also should consider pressures associated with traffic or other adjacent surcharge. Care should be taken to avoid exertion of excessive compaction pressures in backfilling of walls. The above loading is based on the assumption that hydrostatic pressures will not develop behind the walls.

Walls should be drained as needed to relieve potential hydrostatic pressure. Where floor slabs or pavements adjoin the tops of walls, this should suffice to exclude significant water and further drainage measures would not be required.

Only nonexpansive silts, sands or gravels should be used to backfill dock area walls. On site clays should not be used in wall backfill. Use of 3/8-inch pea gravel or clean 3/4-inch crushed rock for wall backfill is acceptable and can facilitate placement and compaction procedures. Backfill should be placed in level lifts not exceeding 12 inches in compacted thickness. Each lift should be compacted at a uniform near optimum moisture content to at least 90 percent of the ASTM D1557-02 maximum dry density.

SLAB-ON-GRADE

Thickness Requirements

Because of stresses induced by truck cranes during panel erection and the expansive nature of the site soils, a minimum six-inch thick floor slab is suggested for all floor areas. Our calculations indicate a six-inch thick slab would be capable of supporting typical 3000- to 5000-pound capacity forklifts carrying loads of less than 3000 pounds. If the floor will support more heavily loaded forklifts, or if high racks are used, then a six-inch slab may not be sufficient and our firm may be contacted for further recommendations. A modulus of subgrade reaction of 150 pounds per cubic inch may be used for the treated building pads in determining slab thickness for forklift and rack loads.

Due to the expansive soil setting, floor slabs should be reinforced with No. 4 bars spaced on 24-inch centers in each direction as a minimum. The reinforcement should be chaired at the middepth of the slab. The above discussion of slab thickness is based on use of quality strength concrete (4000 pounds per square inch minimum 28-day compressive strength). We suggest slab concrete be placed at a slump of three to four inches. Fibermesh® may be used in concrete to increase toughness, if desired.

The floor slab should be thickened by at least 20 percent of the above recommended thickness at any drive-through doors. In addition, edges should be thickened wherever heavy materials will be stored within five feet of a free slab edge. A free slab edge is defined as any joint or edge where load transfer to adjacent areas is not provided, such as at building wall lines or undoweled expansion joints. The transition to the thickened edge may be achieved by tapering the slab thickness over a distance of five feet. Tapering may be accomplished by reducing the underlying aggregate base thickness at the edges.

Joints

Shrinkage crack control joints should consist of sawcut grooves penetrating at least one-fourth of the slab thickness. Control joints should not be spaced farther apart than about 30 times the slab thickness. Construction cold joints and expansion joints in the warehouse slab should include dowels to provide load transfer. Dowels should be three-quarters inch in diameter, 14 inches long, and spaced on 12 inch centers for six inch thick slabs. One end of dowels at expansion and crack control joints should be greased and wrapped in plastic to allow horizontal movement. All reinforcement and dowels should be placed at the middepth of the slab.

Underlayment and Moisture Control

The floor slab may be supported on the chemically treated building pad prepared as recommended above. In warehouse areas where minor moisture penetration through the slabs can be tolerated, the slab should be underlain by a minimum four-inch thick layer of Caltrans Class 2 aggregate base to serve as a leveling course. The aggregate base should be wetted immediately prior to placement of slab concrete. Moisture sensitive areas such as office areas receiving impervious floor coverings should be underlain by a minimum four-inch thick layer of clean three-quarter inch crushed rock graded such that 100 percent passes a one-inch sieve and none passes a No. 4 sieve, to serve as a capillary moisture break. In such areas the drainage rock should be covered with a plastic membrane at least 10-mils thick as a moisture vapor retarder. One to two inches of clean sand may be spread over the membrane for protection and to aid concrete curing, if desired. Alternatively, the membrane may be placed directly on the building pad beneath the rock.

With the use of water-based floor based floor adhesives, impervious floor coverings are extremely sensitive to slab moisture. Under some conditions, the small amount of moisture vapor which bypasses the vapor membrane, or even the excess water remaining in the slab from placement, can be sufficient to cause debonding and discoloration problems. To minimize moisture vapor problems, the capillary break gravel must be present to the minimum recommended thickness and the membrane must be continuous throughout the slab area. Any membrane seams should overlap by at least one foot. The membrane should be cut tight to penetrations. Tears and punctures should be sealed with membrane manufacturer-approved tape, or overlain by a second patching membrane. Slab concrete should be placed at as low a water-cement ratio as practical. The under-slab gravel layer should be protected from precipitation and other moisture; wetting of the sand over the membrane prior to concrete placement should be minimized. The edges of the slab at the building perimeter should be thickened to form a cutoff between the building exterior and under-slab gravel layers. If impervious floor coverings are planned and greater assurance against moisture problems is desired, consideration should be given to waterproofing of slabs with a quality commercial concrete sealant. A sealant or other waterproofing system may be necessary for the satisfactory performance of wood laminates, sheet vinyl, and other impervious flooring.

FLATWORK

The expansive soils on the site will cause movement of exterior walkway slabs, resulting in cracking as well as horizontal and vertical separations at joints. These effects can be reduced by extending lime/cement treatment over these areas, or by placing at least 12 inches of imported nonexpansive fill beneath walkway slabs. Chemical treatment is required beneath flatwork immediately adjacent to the building to reduce the potential for differential movement between the interior floor and exterior slabs at doorways. Although use of chemical treatment or imported fill in other flatwork areas is not required by this report, we suggest such measures be considered. Consideration also should be given to use of reinforcement, frequent control joints, and thickened edges to retard subgrade moisture changes beneath flatwork. Placement of pavements or well-irrigated landscaped areas along the edges of flatwork can help reduce soil moisture content changes and expansive soil movements. Large shrubs or trees with invasive root systems can dessicate soils beneath flatwork, and should not be planted immediately adjacent to building or flatwork areas. The possibility of differential movement between the deeply supported building and adjacent flatwork should be recognized in establishing grades.

PAVEMENTS

Resistance (R) value tests are used to evaluate pavement subgrade properties. Our site observation and work in the area indicates that the pavement subgrades are likely to consist of mixtures of clays on the southerly portion of the site and clayey silts on the northerly portion of the site. R values can range from five for the poorest quality clay subgrades to 70 or higher for high quality sand and gravel subgrades. An R value test on a sample of the clayey silts obtained an R value of 6. This R value has been used in the Caltrans Design Method for Flexible Pavements to evaluate pavement sections.

We typically attempt to determine pavement sections that include use of lime/cement treated soil subbase. Our observations and tests show most areas of the site have a relatively high percentage of organic material in the surface soils, which makes the soils less reactive to treatment and can result in treated strengths that have unreliable long term stability. Previous treated soil compressive strength tests on these soils did not obtain the strengths desired for pavement support. Based on this we recommend pavements on this project not rely upon a treated soil layer as part of the pavement section.

The Caltrans design method uses a traffic index (TI) to account for vehicle loads, frequency, and design life. A design life of 20 years is commonly used for commercial pavements. The Asphalt Institute has suggested that TI 4.5 may be reasonably representative of automobile parking lot traffic. Truck use areas require a higher traffic index. A TI of 7.0 is considered capable of supporting up to about 60 fully loaded, five-axle semi-trucks per week using any one section of the pavement. Pavement sections designed for TI 8.0 are considered capable of supporting up to about 190 fully loaded, five axle semi-trucks per week. Pavement section alternatives for a range of traffic indices are presented in Table 2. We can provide pavement sections for other traffic indices upon request.

**TABLE 2
 PAVEMENT SECTION
 ALTERNATIVES**

Design Traffic Index/ Use	Type B Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)
4.5	2.5	9
Auto Parking	3	7
6.0	3	13
10 to 20 Trucks per Week	4	11
7.0	3	17
Up to 60 Trucks per Week	4	15
8.0	3.5	20
Up to 190 Trucks per Week	4	19

Materials and construction within structural pavement sections should conform to the applicable provisions of the 2010 Caltrans Standard Specifications

The expansive subgrade soils will shrink and swell with moisture variations. This can lead to early cracking of asphalt concrete pavements, particularly adjacent to unpaved areas that are exposed to the weather. Similar cracking is prevalent when pavements are near the crown of slopes, as soil expansion cycles encourage slope soils to spread laterally and creep down hill. Such cracking is primarily cosmetic and periodic crack sealing can help ensure long-term pavement performance. The incidence of such cracking can be reduced by maintaining well-watered landscaping along the edges the pavements that prevent drying of the soils. If pavements are constructed during the dry months, occasional sprinkling or watering of the subgrade until the asphalt concrete is placed also can help maintain subgrade moisture and reduce future swelling/cracking. During the dry months, watering of landscape areas and planters adjacent to the paving should commence immediately after paving, if possible. Due to expansive soil movements, curbs and pavement edges will tend to spread laterally unless confined by the soils of adjacent landscaped areas. Slopes and retaining walls that result in significant portions of the adjacent grades being lower than the pavement edge should be avoided, if possible.

LIMITATIONS

This report necessarily assumes uniform variation of soils between borings. Our recommendations are based upon this assumed uniformity and the information provided regarding the proposed construction. If unusual conditions are encountered during construction, the contractor or his representative should notify this firm immediately so that alternate recommendations can be made.

This report is applicable only to the proposed construction, as described herein, and should not be utilized for design or construction on any other site.

oOo

The following Plates are attached and complete this report:

- Plate 1 - Plot Plan
- Plates 2 through 14 - Log of Test Pit, Test Pits 1 through 16
- Plates 15 through 31 - Log of Boring, Borings 1 through 16
- Plate 31 - Unified Soil Classification System
- Plate 32 - Atterberg Limits Data
- Plate 33 - Resistance Value Data
- Plate 34 - Treated Soil Compressive Strength Data
- Plate 35 - Organic Content Test Data

Sincerely,

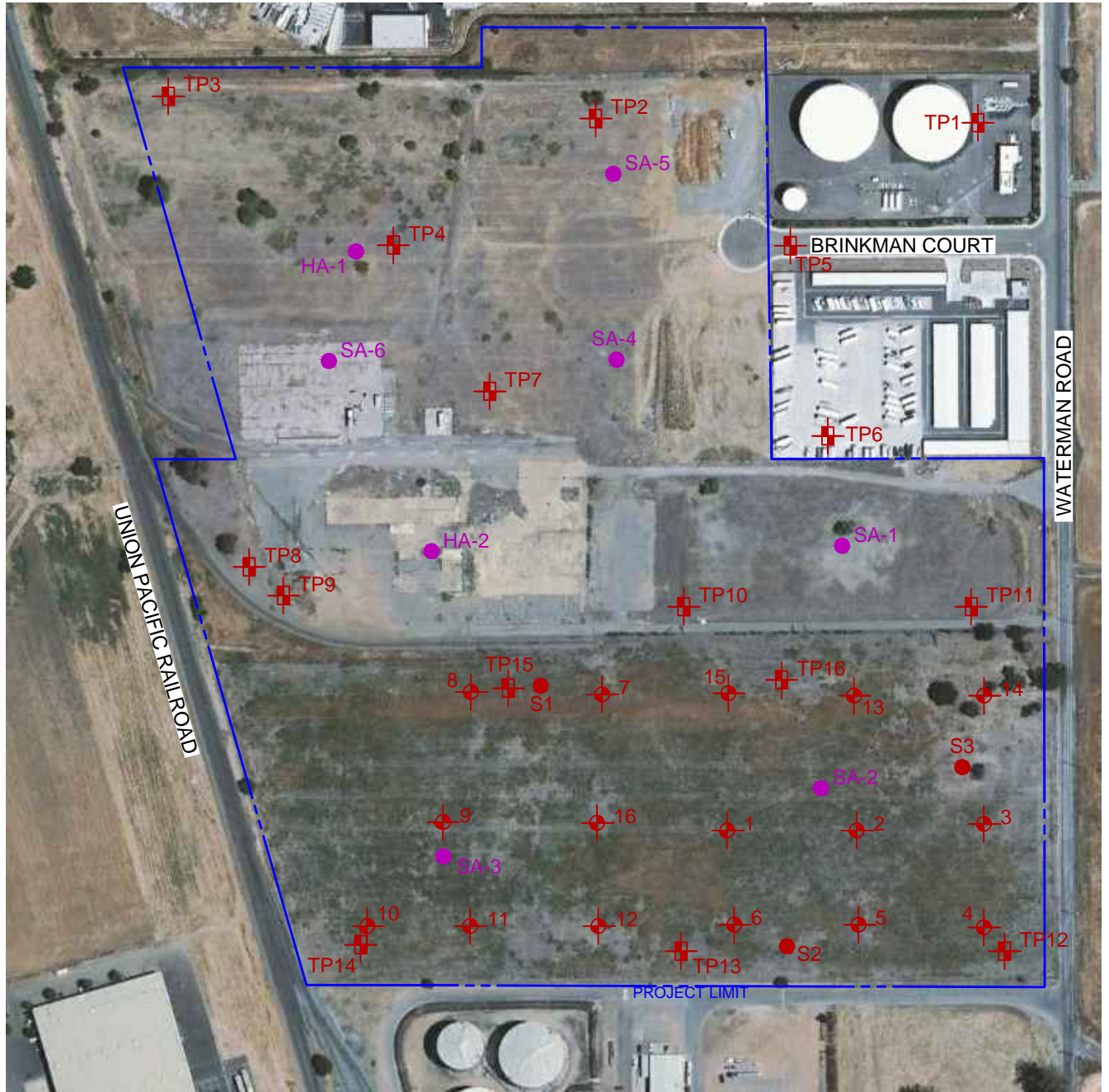
RANEY GEOTECHNICAL, INC.







William C. Boli
Geotechnical Engineer No. 2004

(1) addressee

PROJECT NUMBER: 146-538
 DRAWN BY: WCB
 DATE: 6/2/16
 PLATE NUMBER: 1

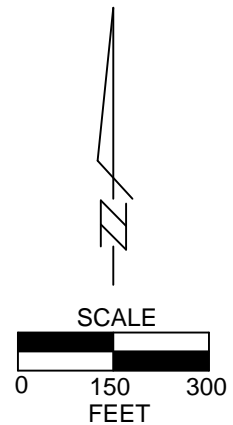


KEY:

-  TP4 TEST PIT EXCAVATED FOR 1992 INVESTIGATION
-  2 BORING DRILLED FOR 2004 INVESTIGATION
-  S1 SAMPLE LOCATION FOR 2004 INVESTIGATION
-  SA-3 SAMPLE LOCATION FOR THIS INVESTIGATION

NOTES:

1. TEST PIT, BORING AND SAMPLING LOCATIONS SHOWN ARE APPROXIMATE ONLY.
2. PREPARED FROM A 2007 GOOGLE EARTH PHOTOGRAPH.



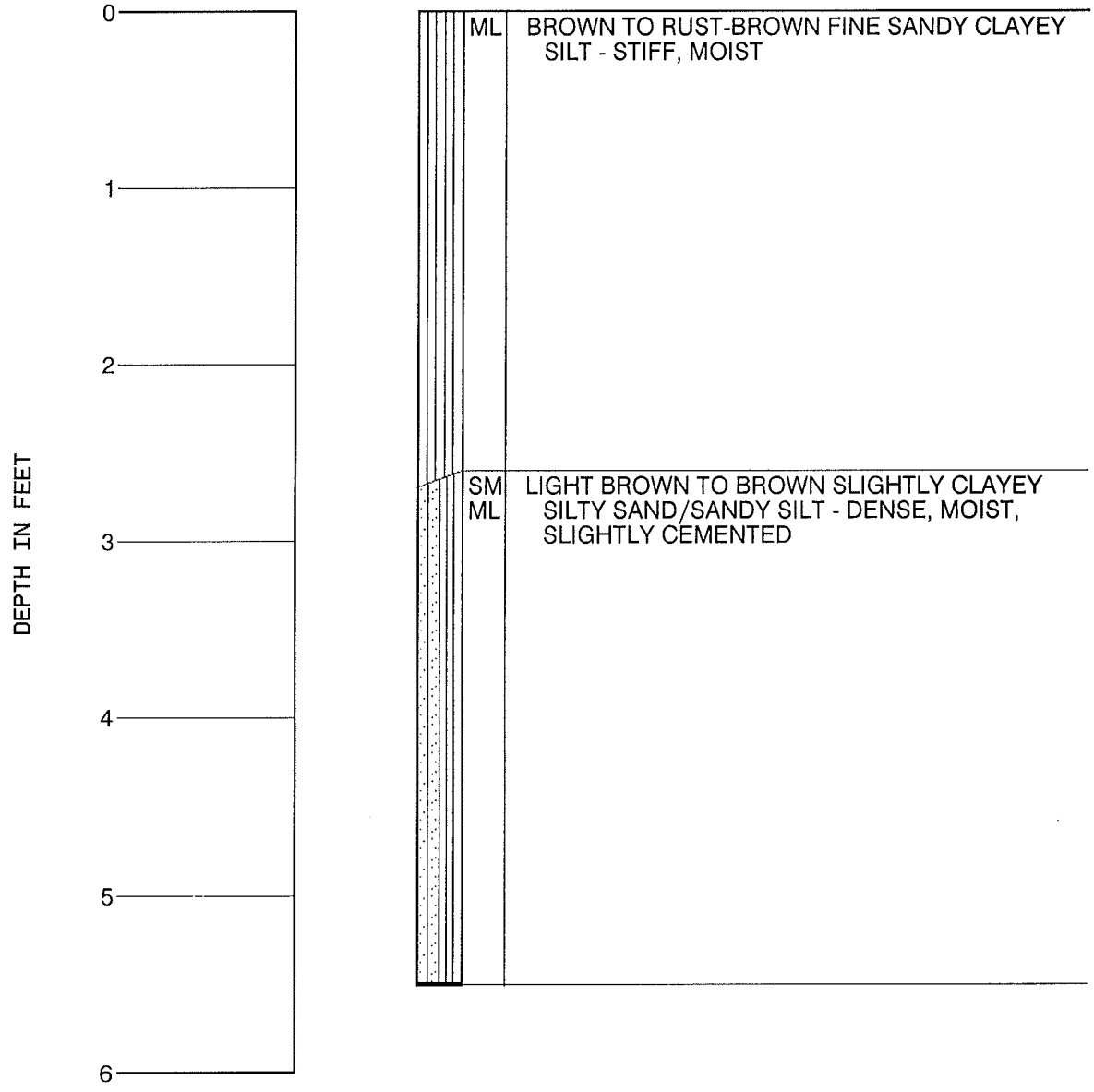
PLOT PLAN



PROJECT NUMBER: 877-001
 DATE: 5/18/92
 DRAWN BY: TSB
 CHECKED BY:
 PLATE NUMBER: 2

TEST PIT 1

ELEVATION: 47.0 ± FEET
 EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORINGS.
4. ELEVATIONS SHOWN ARE APPROXIMATE AND WERE OBTAINED BY INTERPOLATION BETWEEN GROUND SURFACE ELEVATIONS SHOWN ON A PRELIMINARY ALTA/ASCM LAND TITLE SURVEY.

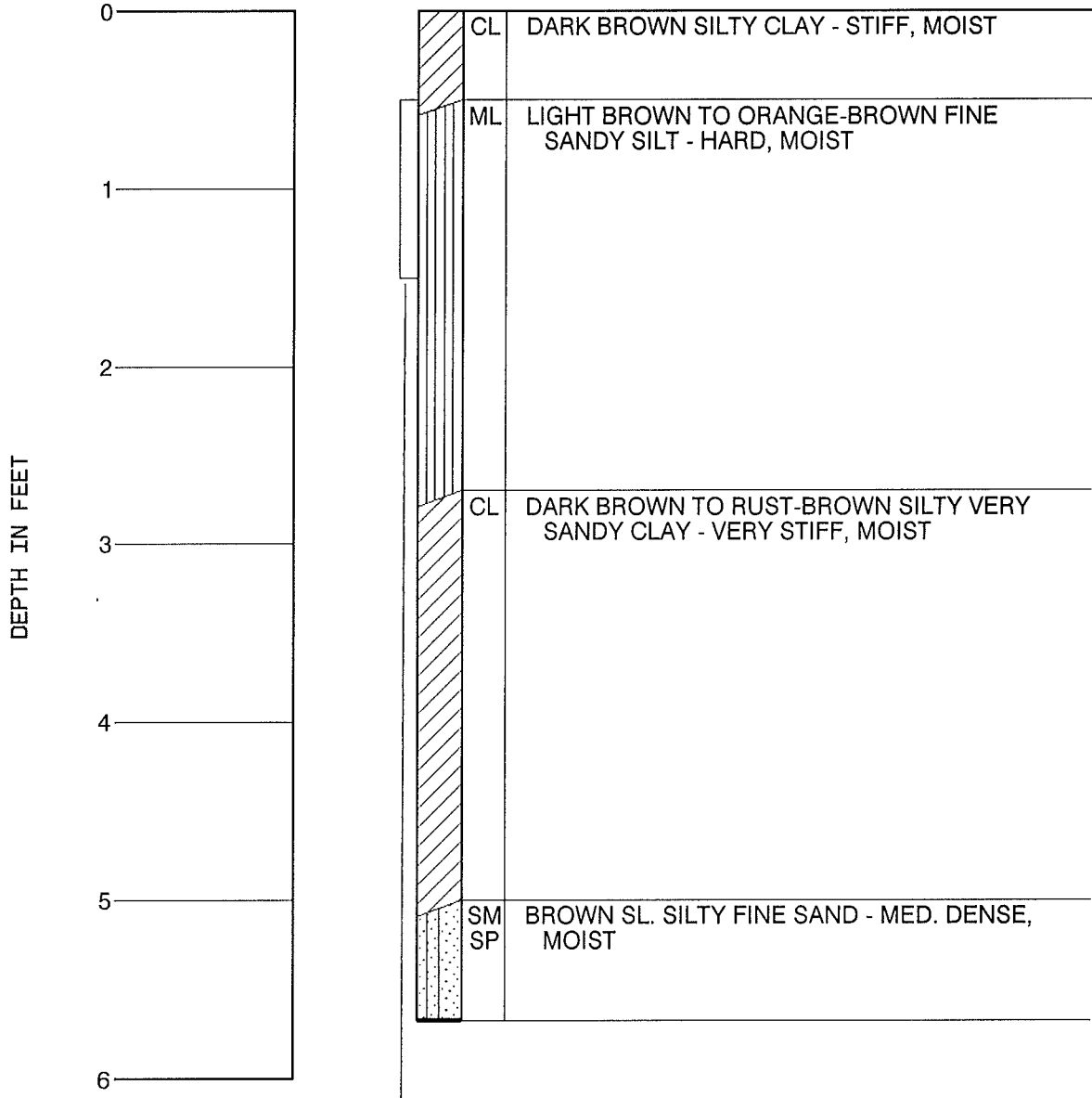
LOG OF TEST PIT



PROJECT NUMBER: 877-001
 DATE: 5/18/92
 DRAWN BY: TSB
 CHECKED BY: _____
 PLATE NUMBER: 3

TEST PIT 2

ELEVATION: 44.5 ± FEET
 EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. BULK SAMPLE OBTAINED.
4. SEE NOTES ON PLATE 2.

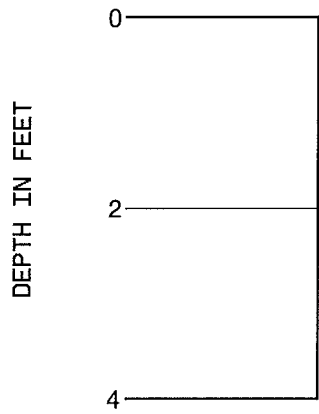
LOG OF TEST PIT



PROJECT NUMBER: 877-001
 DRAWN BY: TSB
 CHECKED BY: DATE: 5/18/92
 DATE:

TEST PIT 3

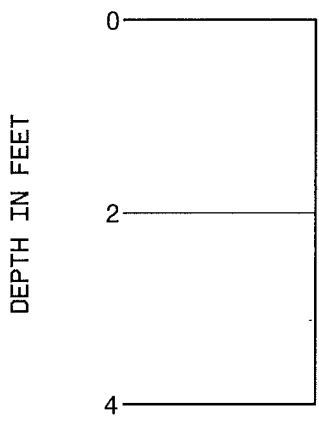
ELEVATION: 44.0 ± FEET
 EXCAVATED: 5/1/92



ML	TAN TO LIGHT BROWN FINE SANDY SILT - HARD, DRY, VARIABLY CEMENTED
SM ML	LIGHT BROWN SANDY SILT/SILTY SAND - DENSE, SL. MOIST, VARIABLY CEMENTED
SM	BROWN TO RUST-BROWN SILTY FINE SAND - DENSE, MOIST, VARIABLY CEMENTED

TEST PIT 4

ELEVATION: 44.5 ± FEET
 EXCAVATED: 5/1/92



ML	DARK BROWN FINE SANDY CLAYEY SILT - STIFF, MOIST
CL CH	DARK GRAY TO BLACK SILTY CLAY WITH OCCASIONAL CHARCOAL SEAMS - STIFF, MOIST
SM	ORANGE-BROWN SILTY FINE SAND - DENSE, MOIST, CEMENTED



NOTES:

1. THE TEST PIT LOGS DEPICT SUBSURFACE CONDITIONS ONLY AT THE TEST PIT LOCATIONS AND TIMES DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATE 2.

LOG OF TEST PIT

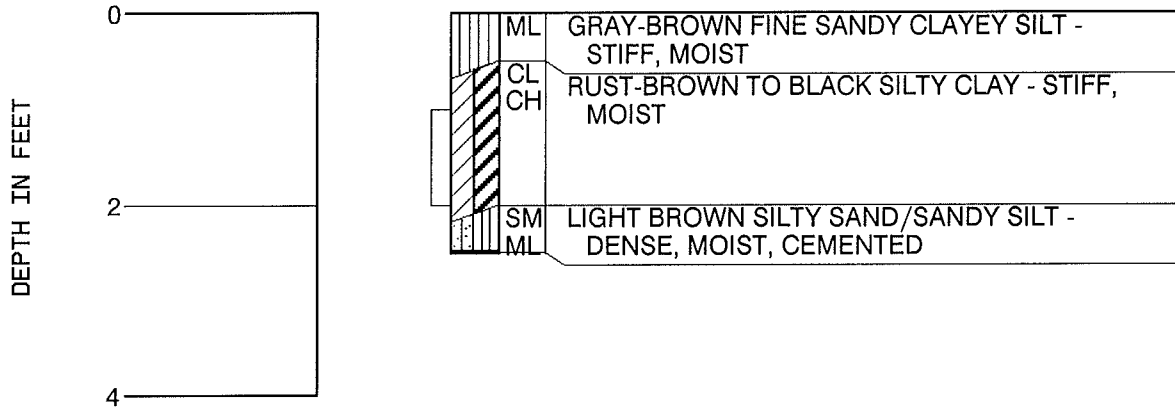


PROJECT NUMBER: 877-001
 DRAWN BY: TSB
 DATE: 5/18/92
 PLATE NUMBER: 5
 CHECKED BY:

TEST PIT 5

ELEVATION: 46.8 ± FEET

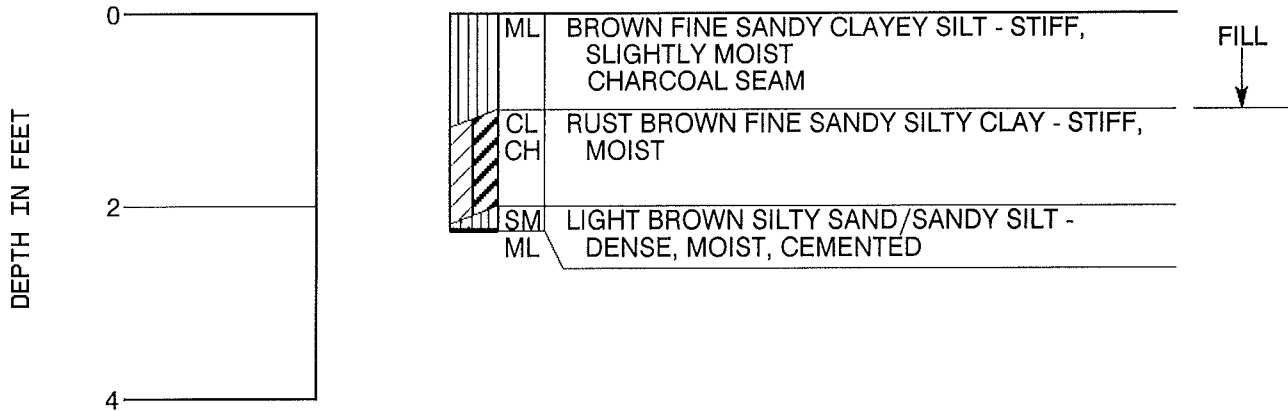
EXCAVATED: 5/1/92



TEST PIT 6

ELEVATION: 46.8 ± FEET

EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOGS DEPICT SUBSURFACE CONDITIONS ONLY AT THE TEST PIT LOCATIONS AND TIMES DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATES 2 AND 3.

LOG OF TEST PIT

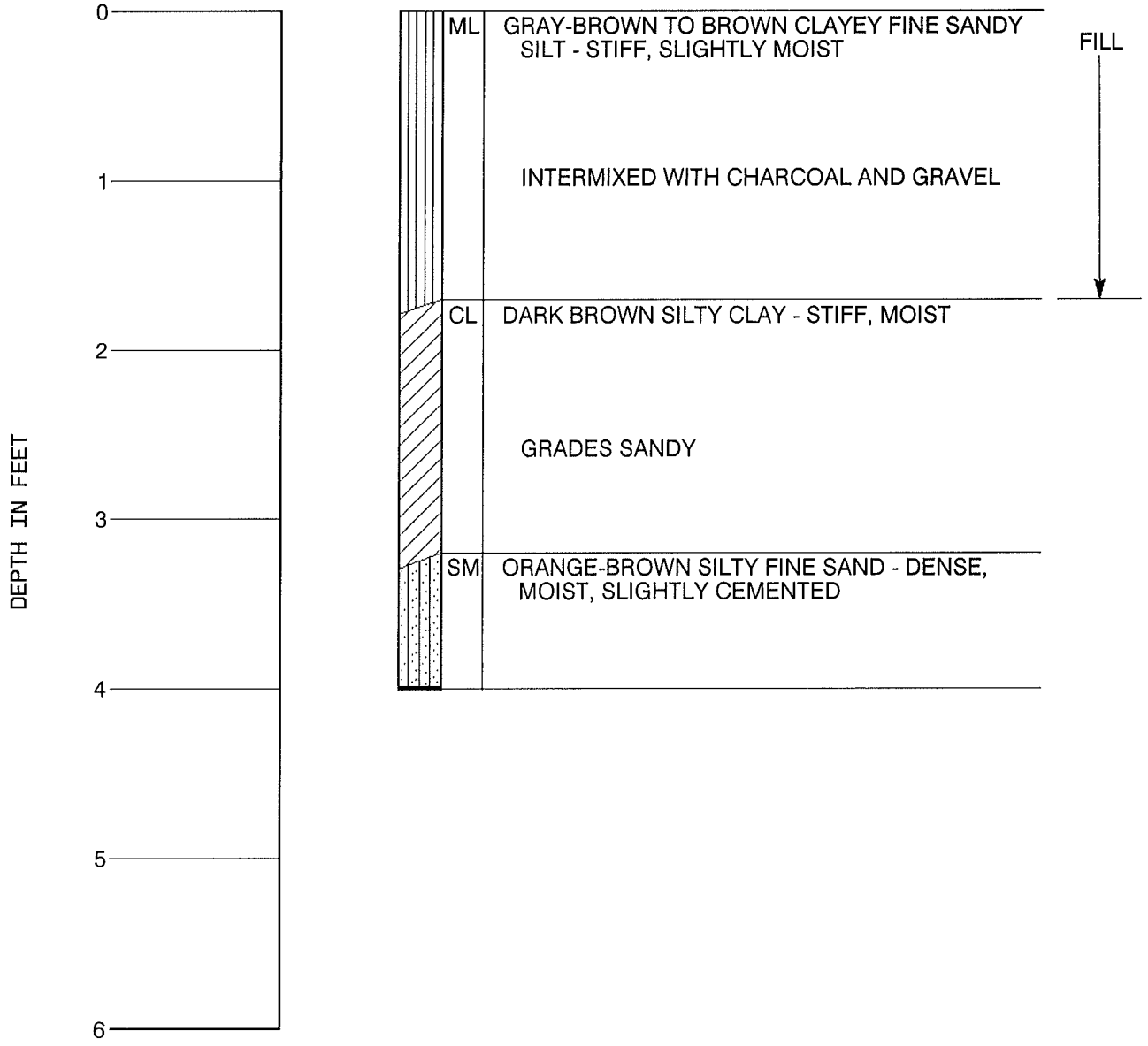


PROJECT NUMBER: 877-001
 DRAWN BY: TSB DATE: 5/18/92
 PLATE NUMBER: 6
 CHECKED BY: _____ DATE: _____

TEST PIT 7

ELEVATION: 47.5 ± FEET

EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATE 2.

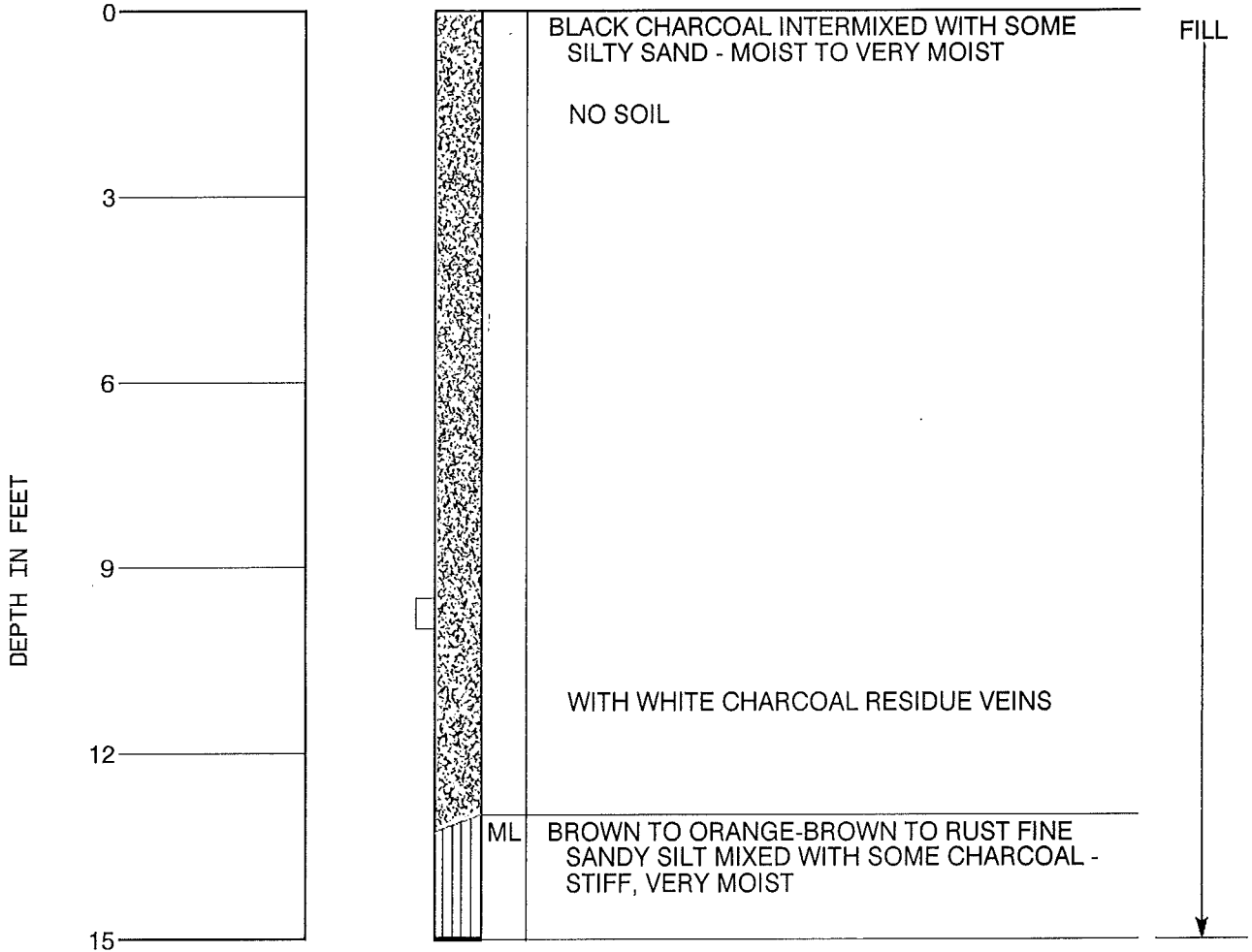
LOG OF TEST PIT



PROJECT NUMBER: 877-001
 DRAWN BY: TSB DATE: 5/18/92
 PLATE NUMBER: 7
 CHECKED BY: DATE:

TEST PIT 8

ELEVATION: 49.5 ± FEET
 EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATES 2 AND 3.

LOG OF TEST PIT

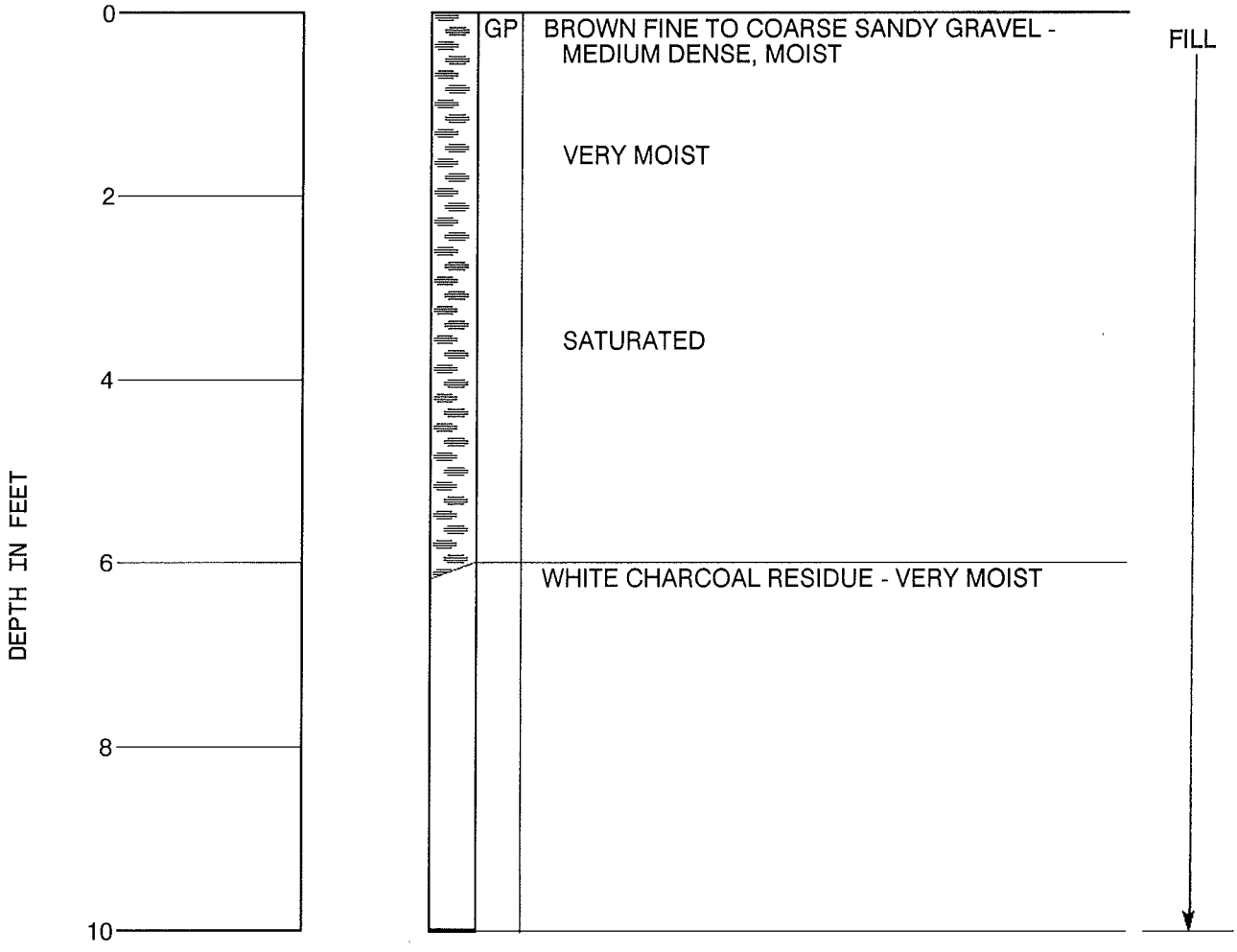


PROJECT NUMBER: 877-001
 DRAWN BY: TSB
 DATE: 5/18/92
 CHECKED BY: _____
 DATE: _____
 PLATE NUMBER: 8

TEST PIT 9

ELEVATION: 50.0 ± FEET

EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATE 2.

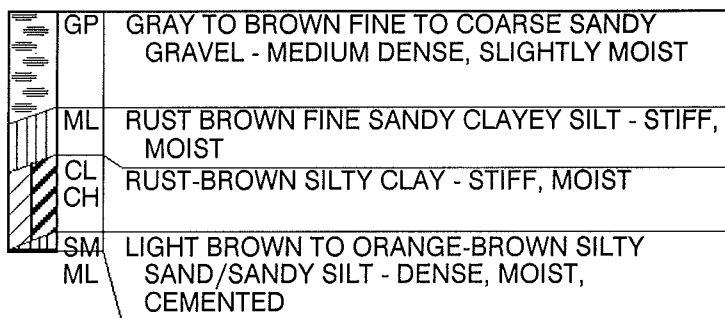
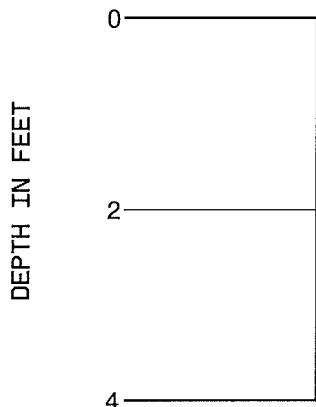
LOG OF TEST PIT



PROJECT NUMBER: 877-001
 DATE: 5/18/92
 DRAWN BY: TSB
 CHECKED BY:
 PLATE NUMBER: 9

TEST PIT 10

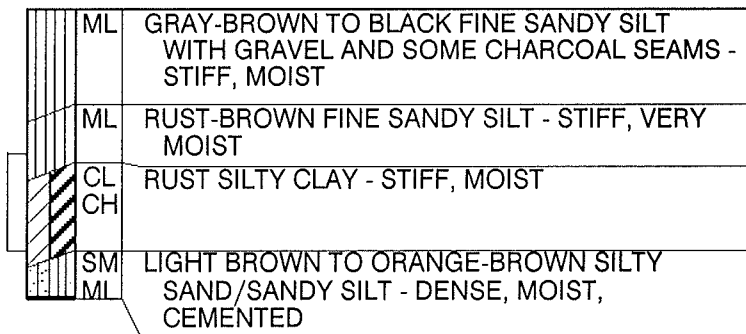
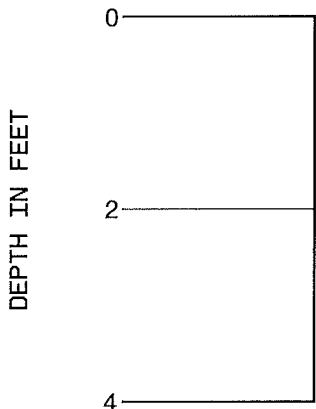
ELEVATION: 49.5 ± FEET
 EXCAVATED: 5/1/92



FILL
↓

TEST PIT 11

ELEVATION: 50.0 ± FEET
 EXCAVATED: 5/1/92



FILL
↓

NOTES:

1. THE TEST PIT LOGS DEPICT SUBSURFACE CONDITIONS ONLY AT THE TEST PIT LOCATIONS AND TIMES DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATE 2.

LOG OF TEST PIT

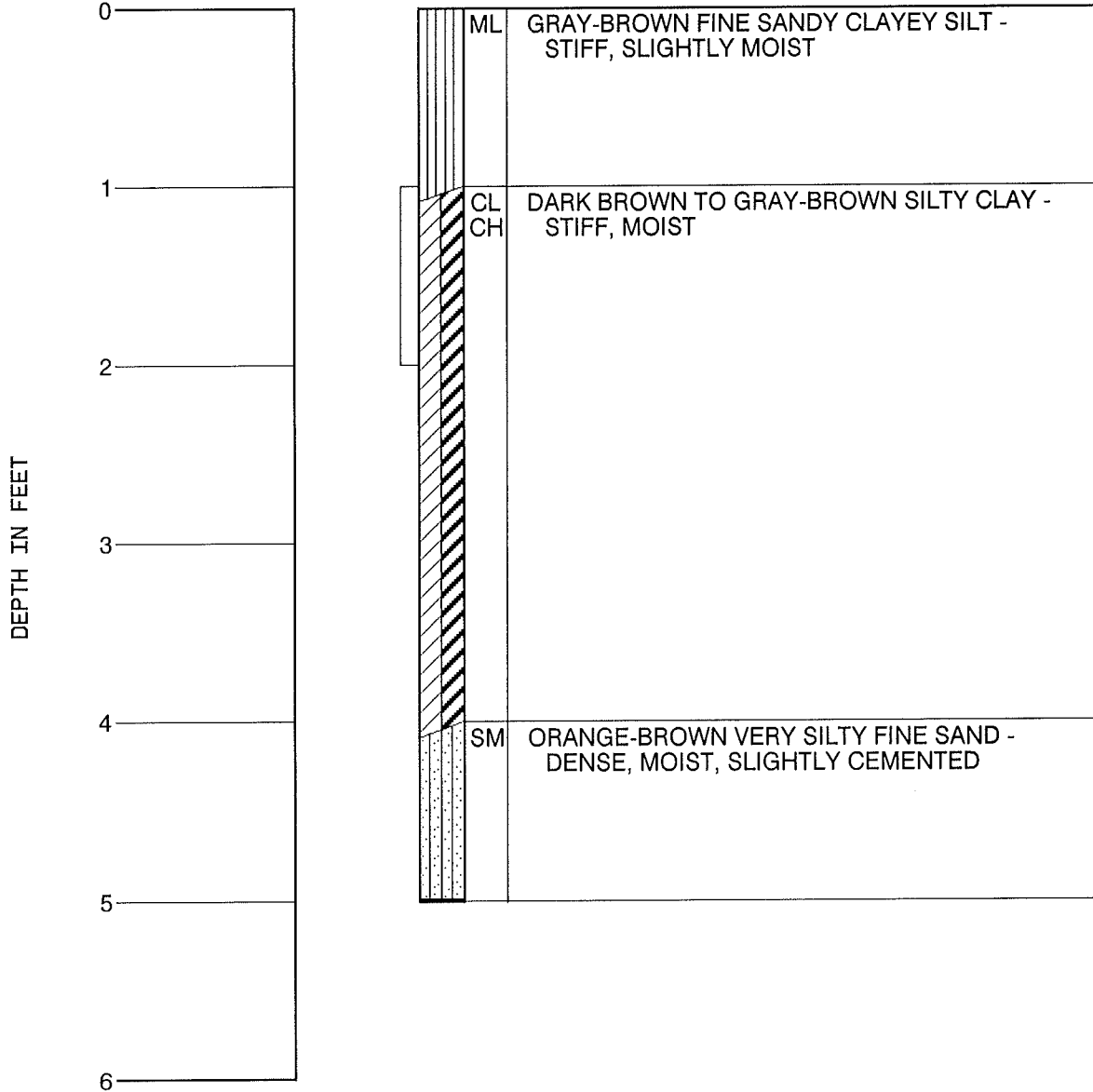


PROJECT NUMBER: 877-001
 DRAWN BY: TSB
 DATE: 5/18/92
 PLATE NUMBER: 10
 CHECKED BY: _____
 DATE: _____

TEST PIT 12

ELEVATION: 50.5 ± FEET

EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATES 2 AND 3.

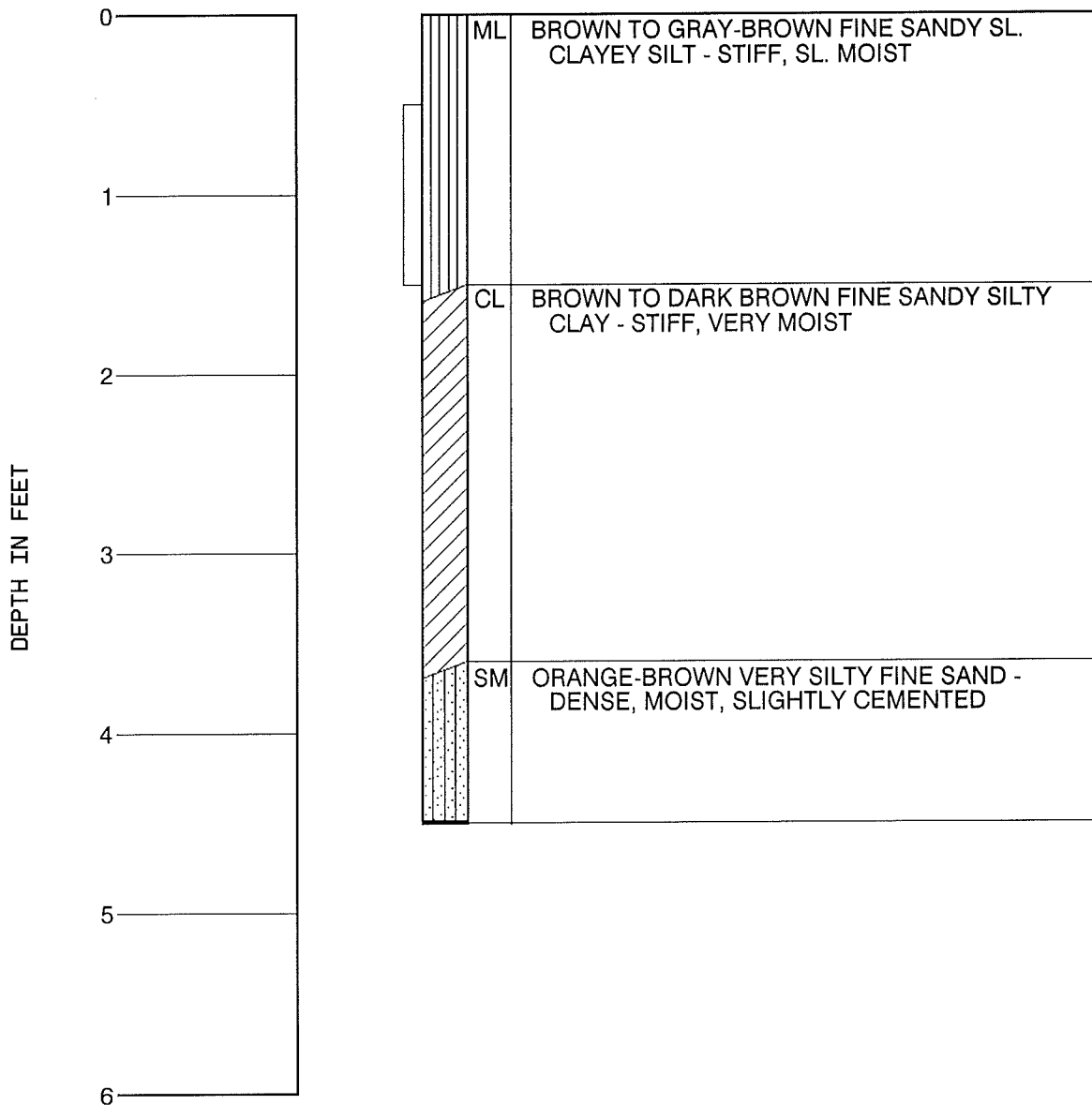
LOG OF TEST PIT



PROJECT NUMBER: 877-001
 DRAWN BY: TSB
 CHECKED BY: _____
 DATE: 5/18/92
 DATE: _____
 PLATE NUMBER: 11

TEST PIT 13

ELEVATION: 49.5 ± FEET
 EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATES 2 AND 3.

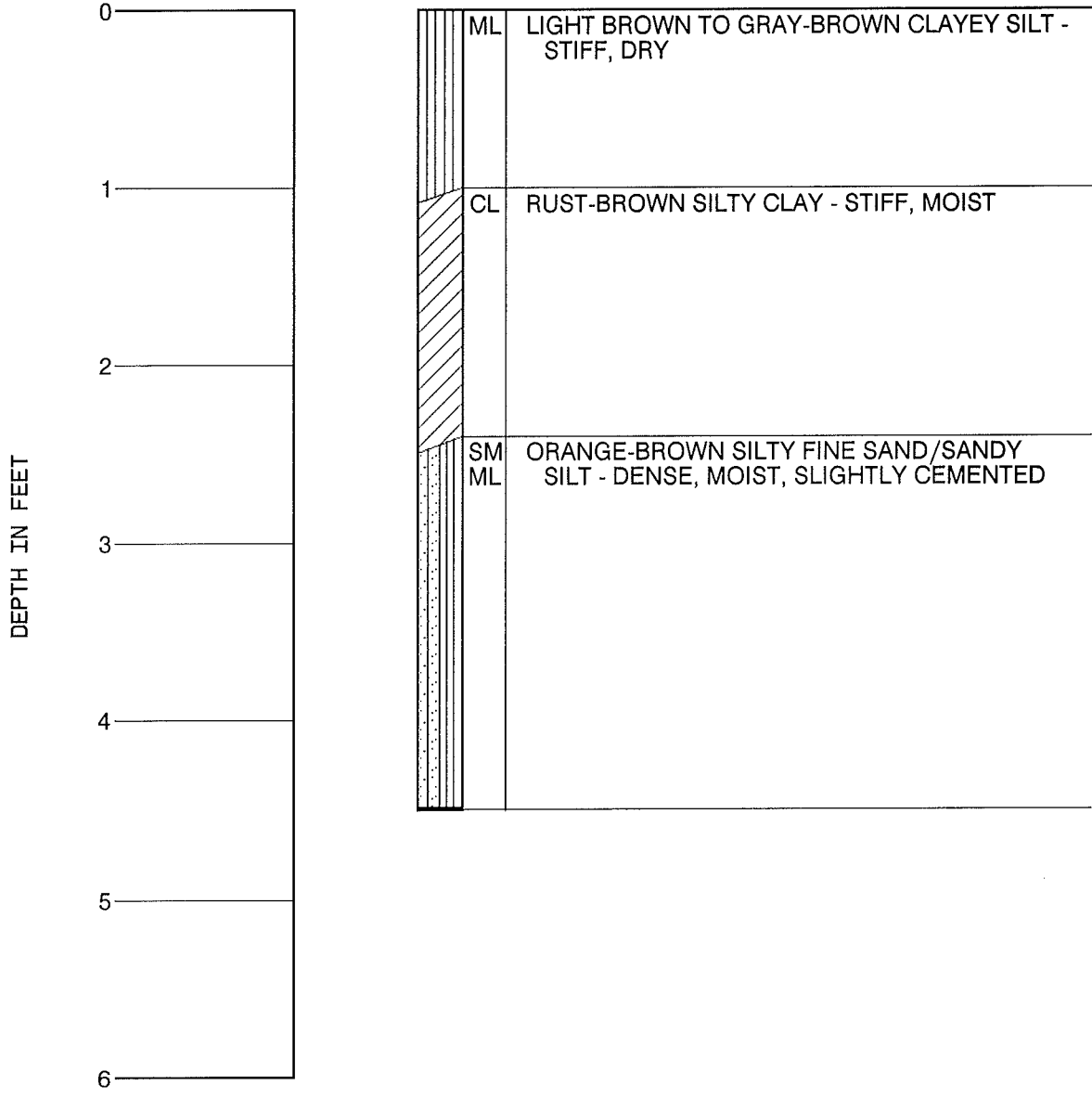
LOG OF TEST PIT



PROJECT NUMBER: 877-001
 DRAWN BY: TSB
 DATE: 5/18/92
 PLATE NUMBER: 12
 CHECKED BY:

TEST PIT 14

ELEVATION: 49.5 ± FEET
 EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATE 2.

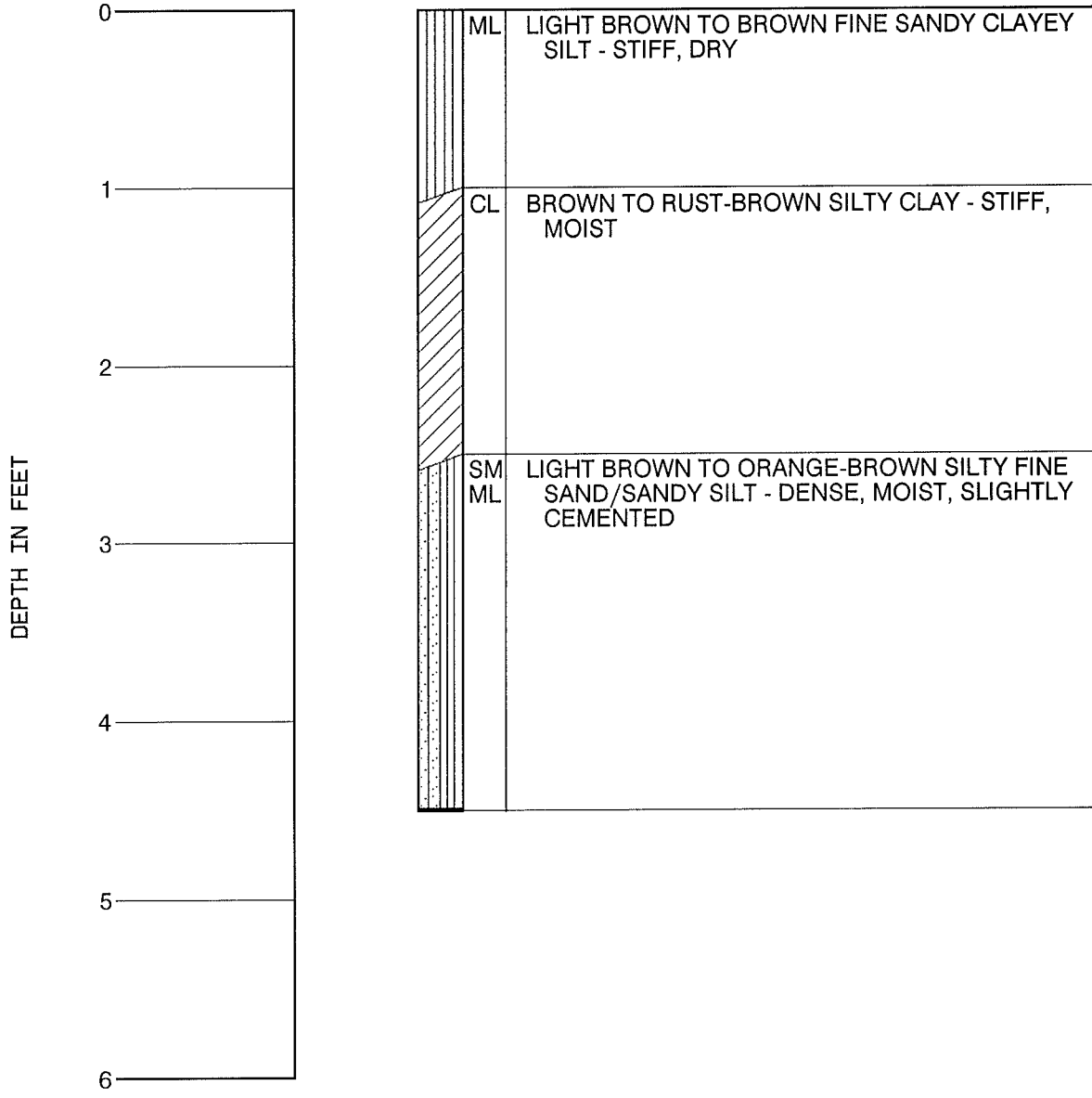
LOG OF TEST PIT



PROJECT NUMBER: 877-001
 DATE: 5/18/92
 DRAWN BY: TSB
 CHECKED BY:
 PLATE NUMBER: 13

TEST PIT 15

ELEVATION: 50.0 ± FEET
 EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATE 2.

LOG OF TEST PIT

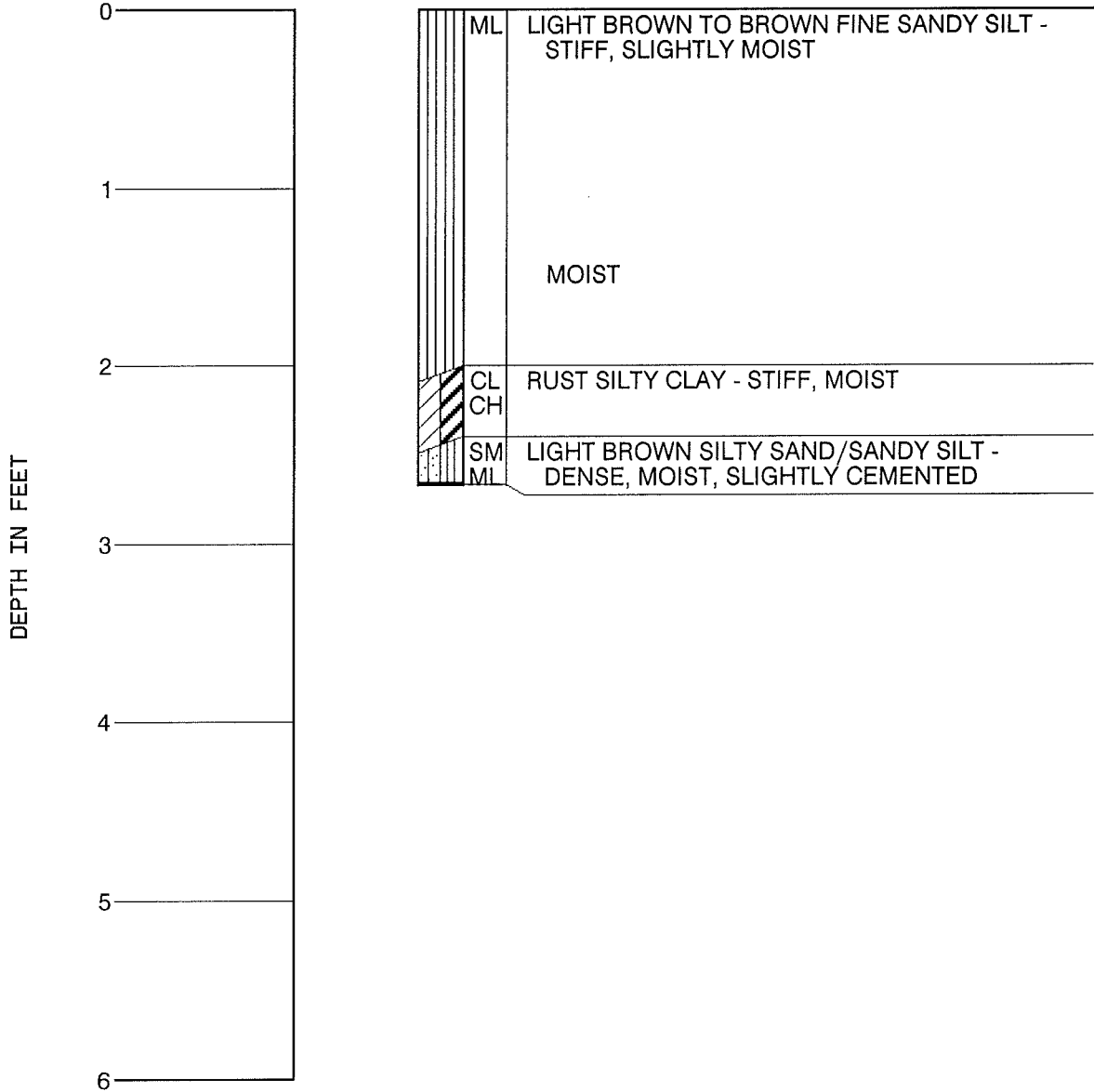


PROJECT NUMBER: 877-001
 DATE: 5/18/92
 DRAWN BY: TSB
 CHECKED BY:
 PLATE NUMBER: 14

TEST PIT 16

ELEVATION: 49.5 ± FEET

EXCAVATED: 5/1/92



NOTES:

1. THE TEST PIT LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 15.
3. SEE NOTES ON PLATE 2.

LOG OF TEST PIT

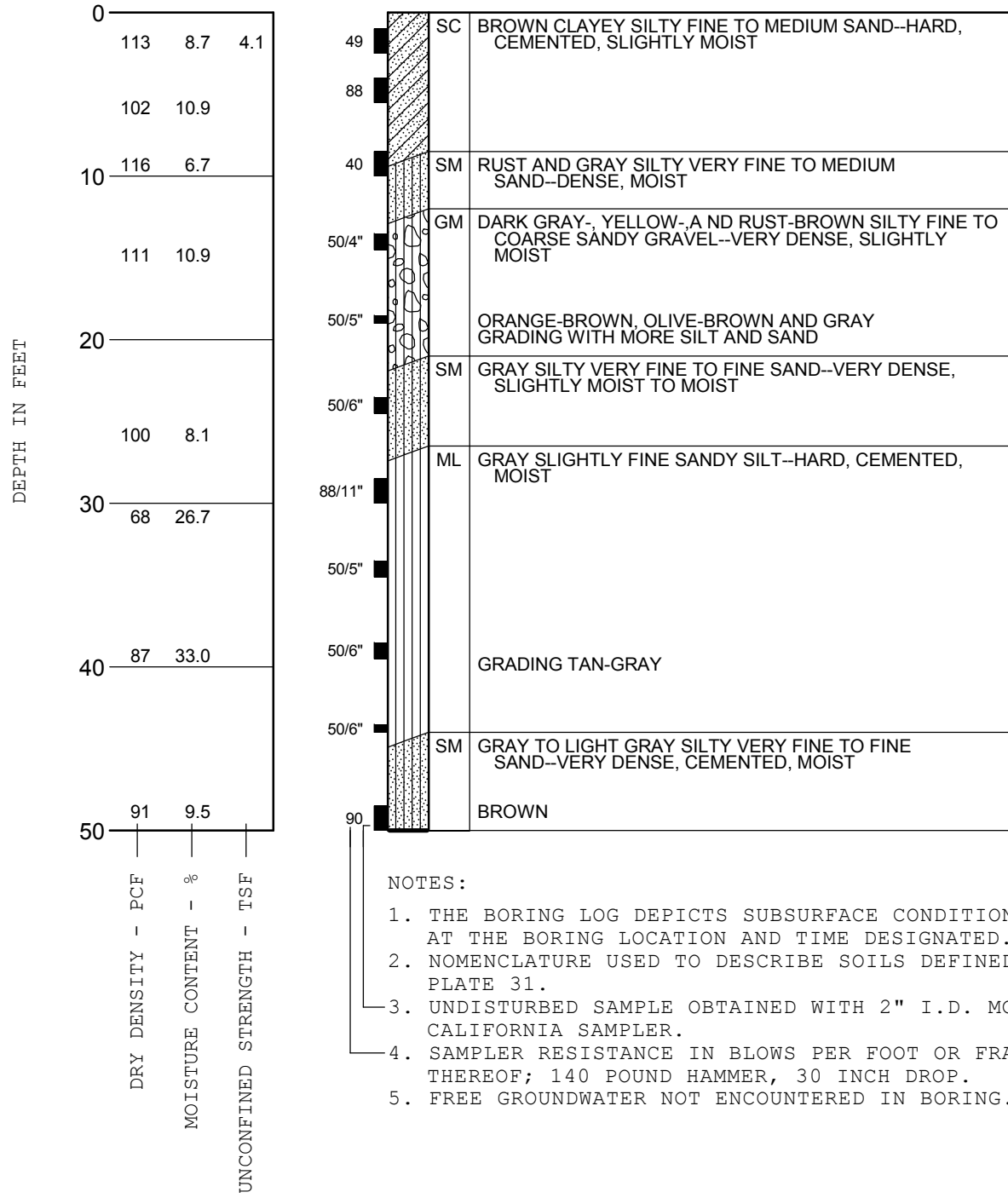


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 15

BORING 1

DRILLED: 9/10/03



- NOTES:
1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
 2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
 3. UNDISTURBED SAMPLE OBTAINED WITH 2" I.D. MODIFIED CALIFORNIA SAMPLER.
 4. SAMPLER RESISTANCE IN BLOWS PER FOOT OR FRACTION THEREOF; 140 POUND HAMMER, 30 INCH DROP.
 5. FREE GROUNDWATER NOT ENCOUNTERED IN BORING.



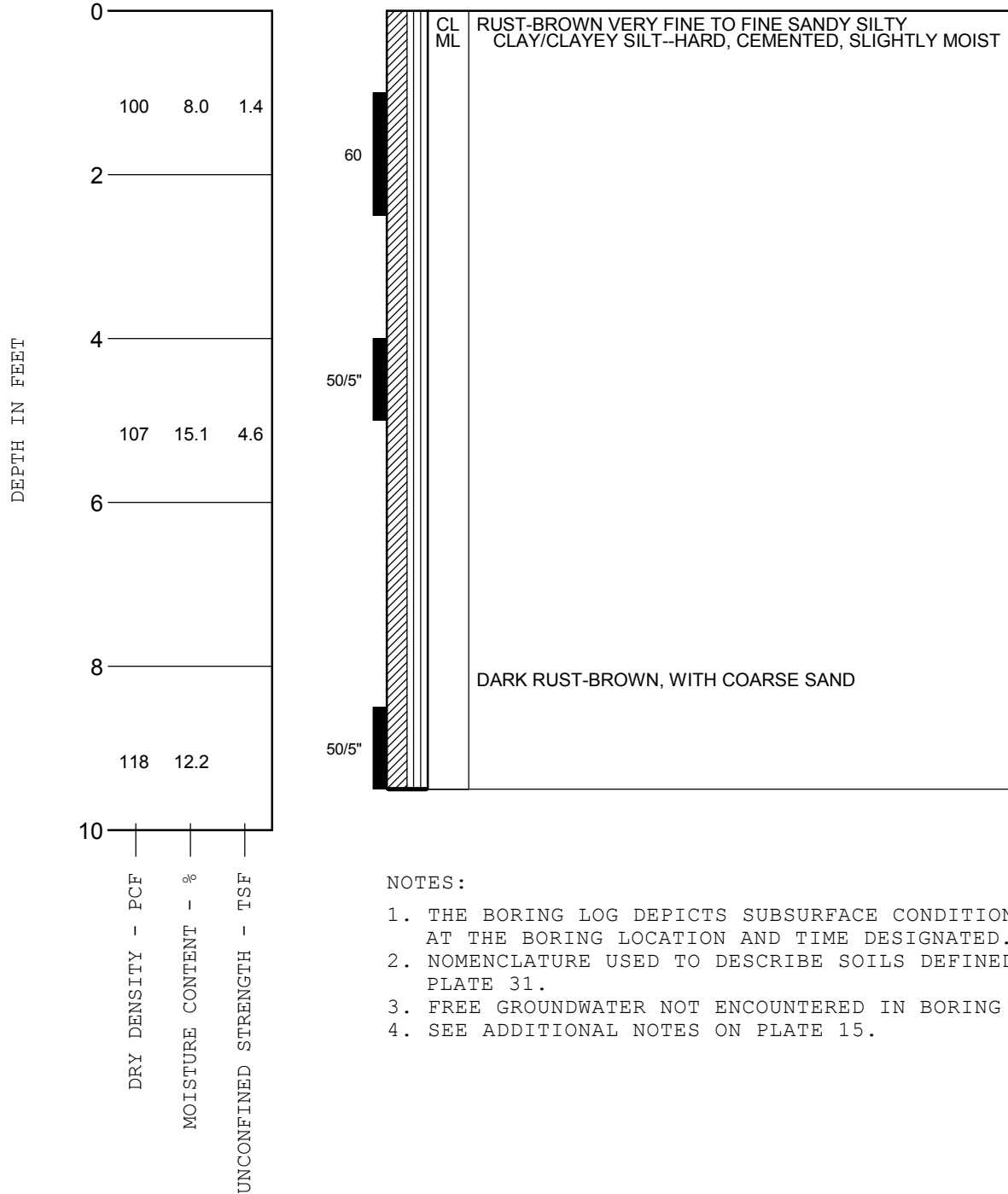
LOG OF BORING

PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 16

BORING 2

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 2.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

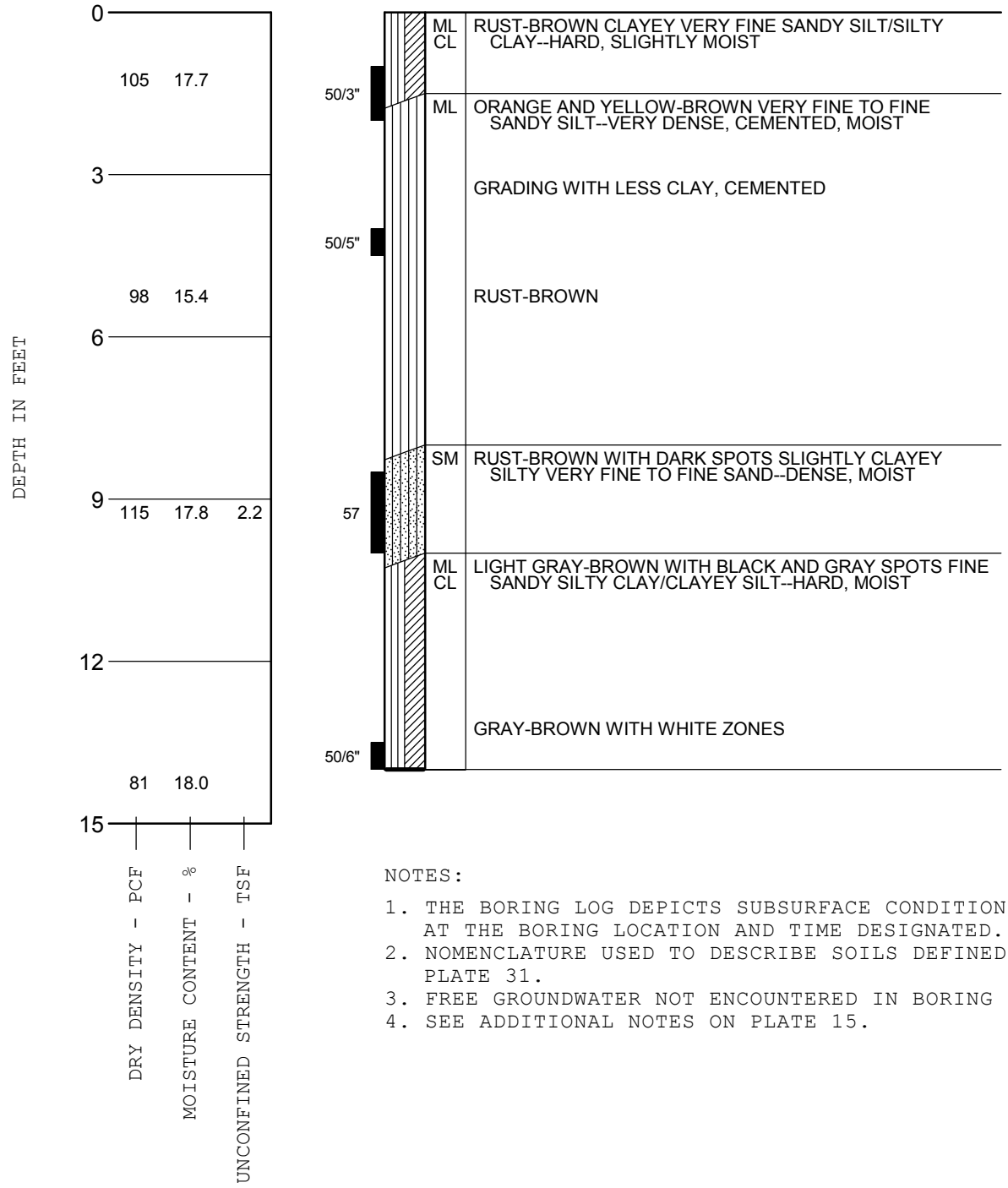


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 17

BORING 3

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 3.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

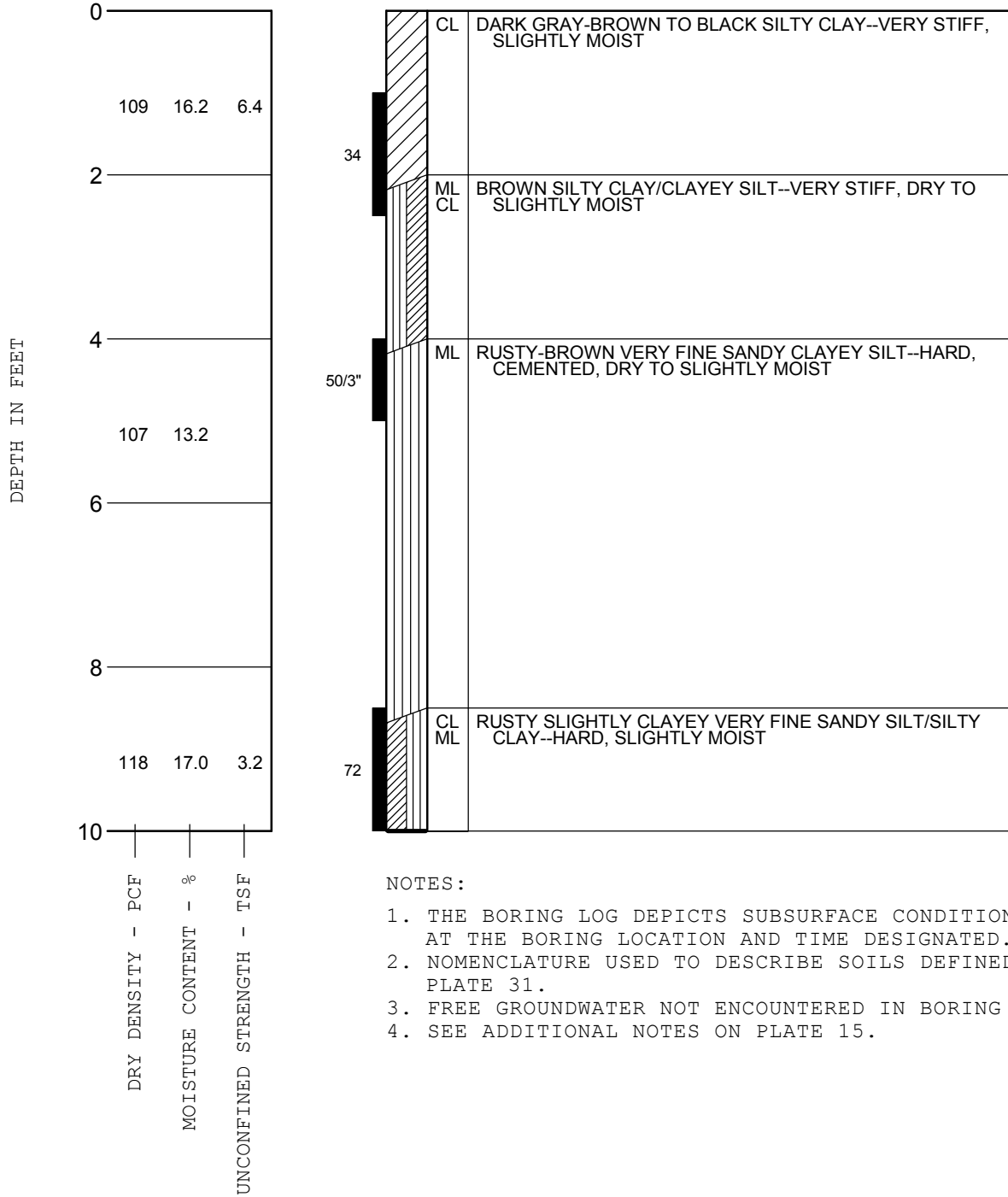


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 18

BORING 4

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 4.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

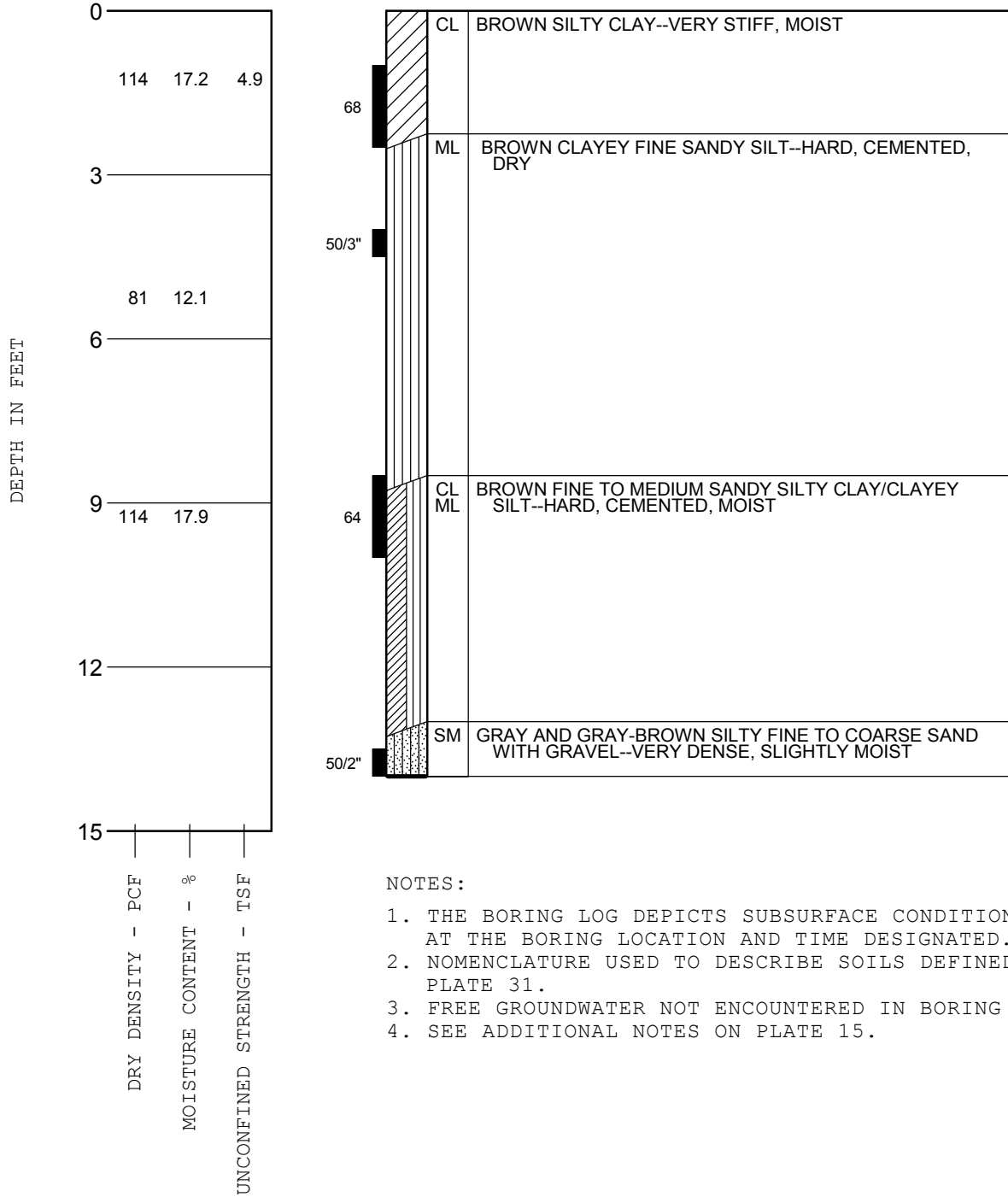


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 19

BORING 5

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 5.
4. SEE ADDITIONAL NOTES ON PLATE 15.

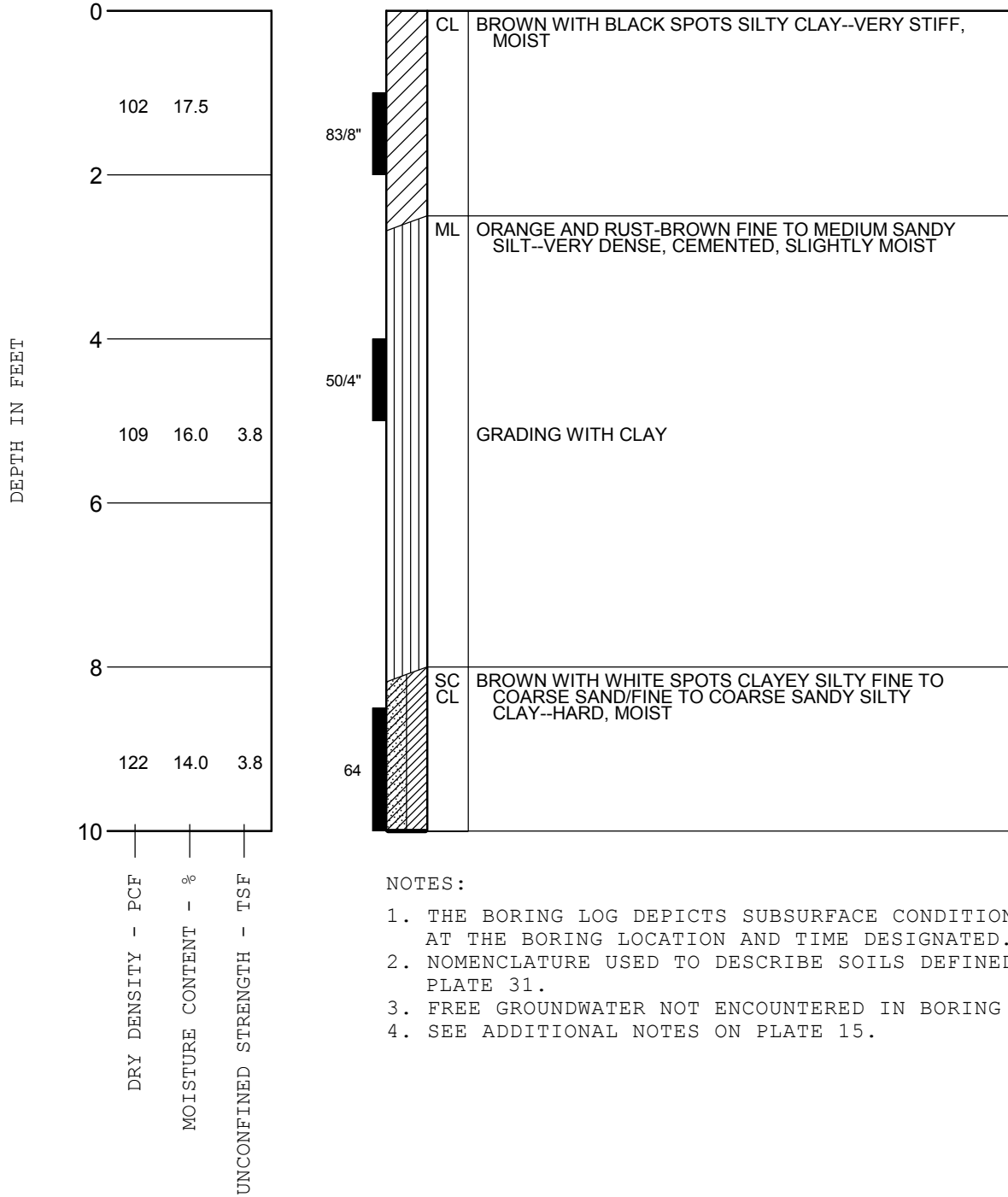
LOG OF BORING



PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04
 PLATE NUMBER: 20

BORING 6

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 6.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

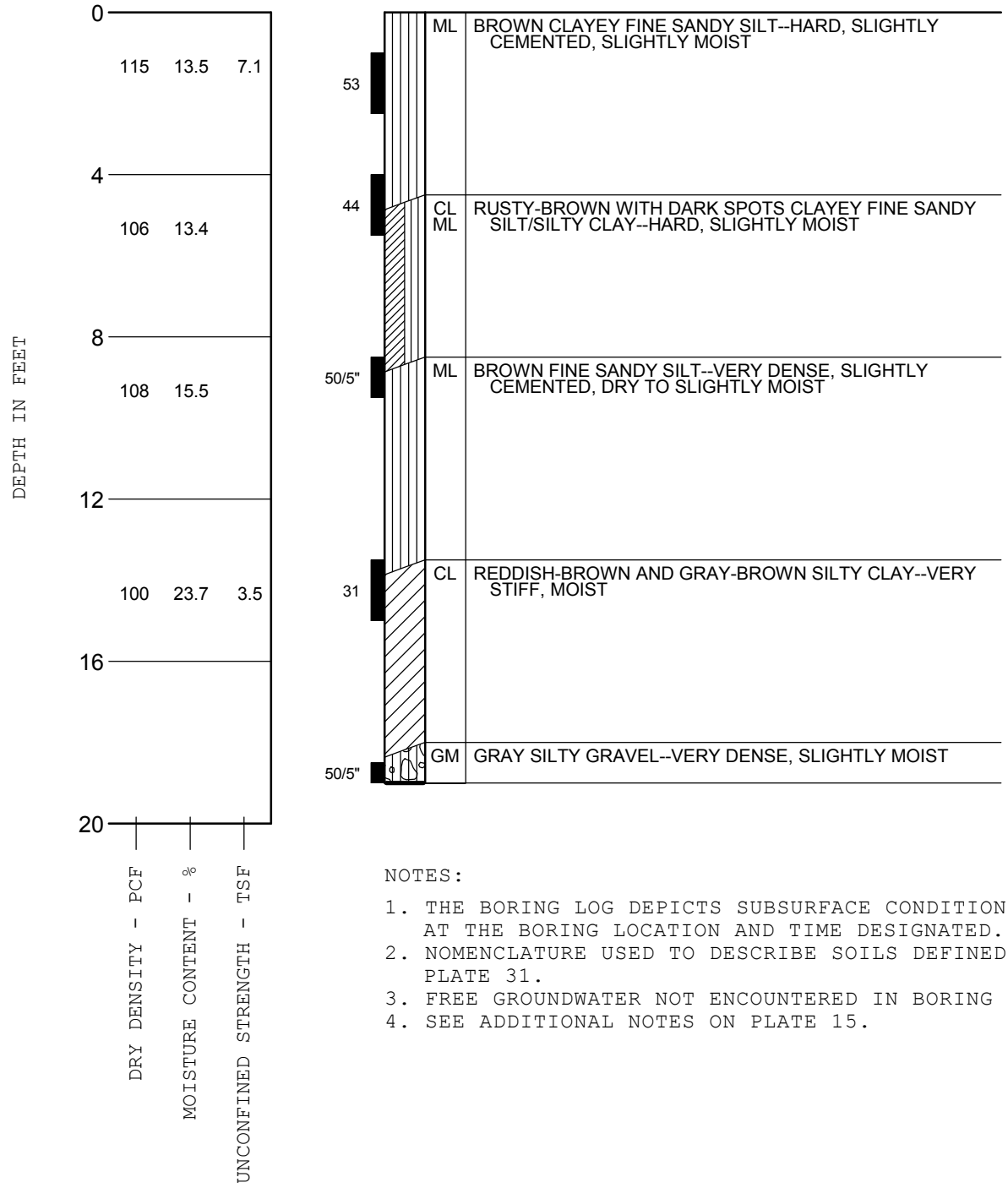


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 21

BORING 7

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 7.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

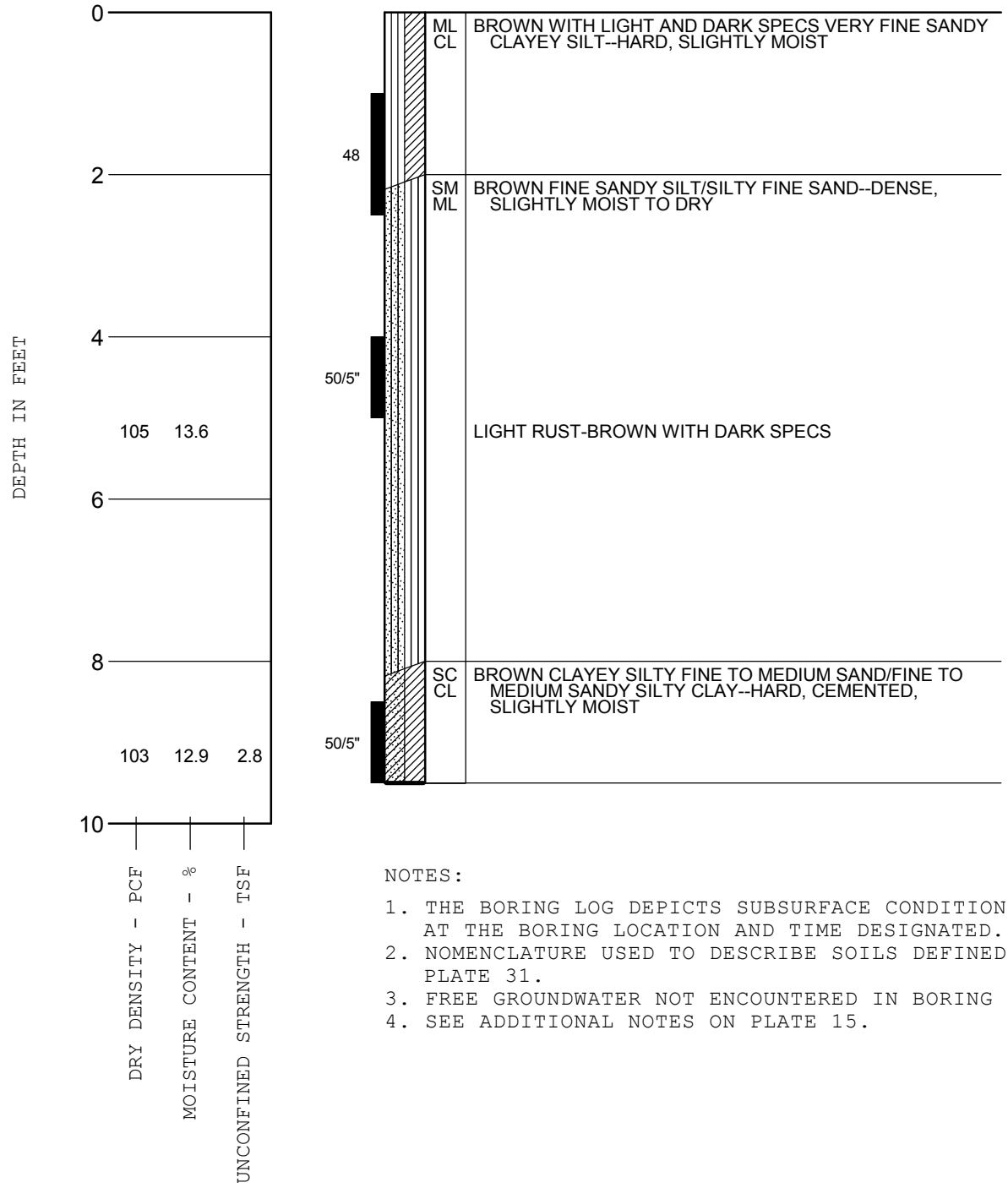


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 22

BORING 8

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 8.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

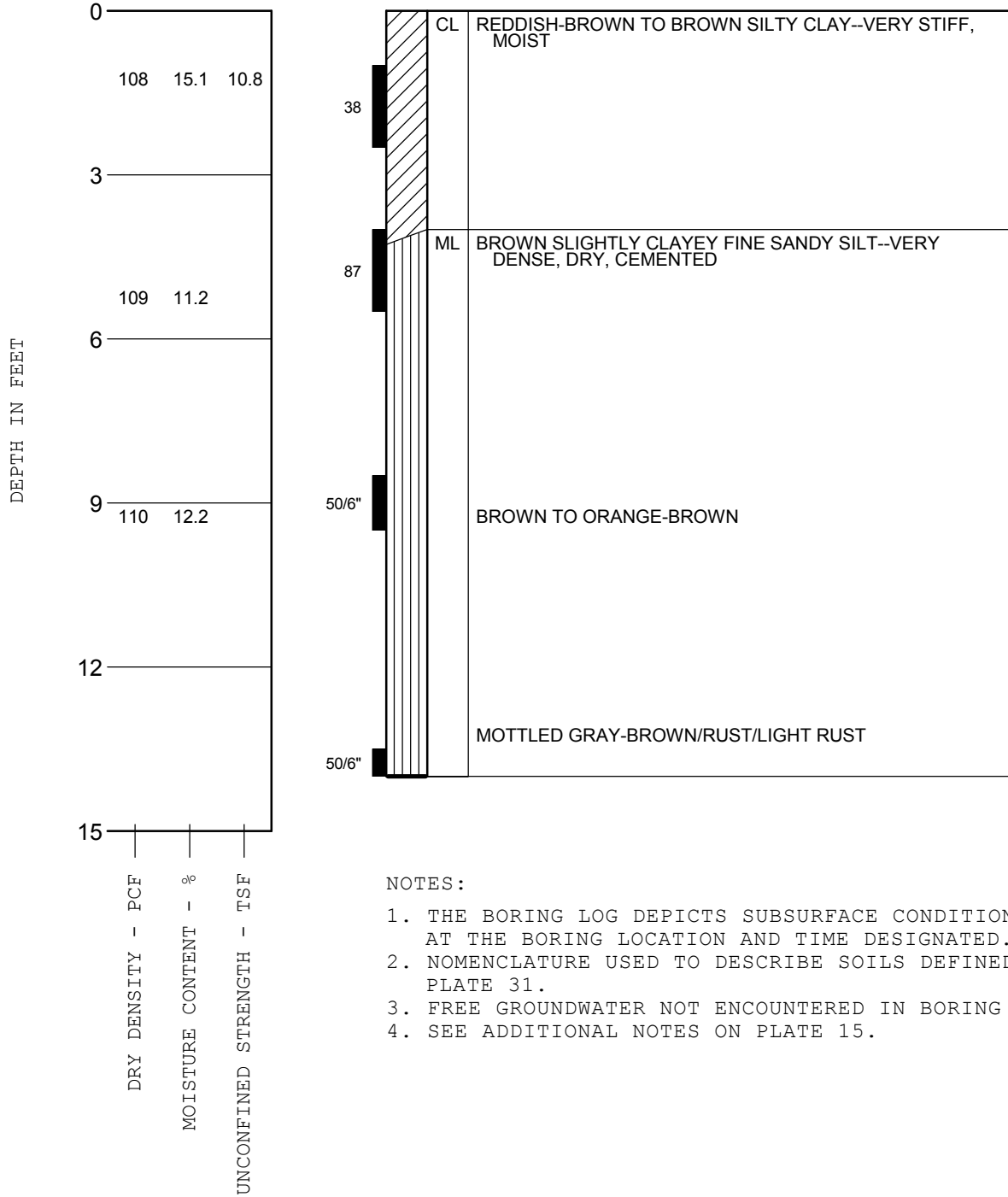


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 23

BORING 9

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 9.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

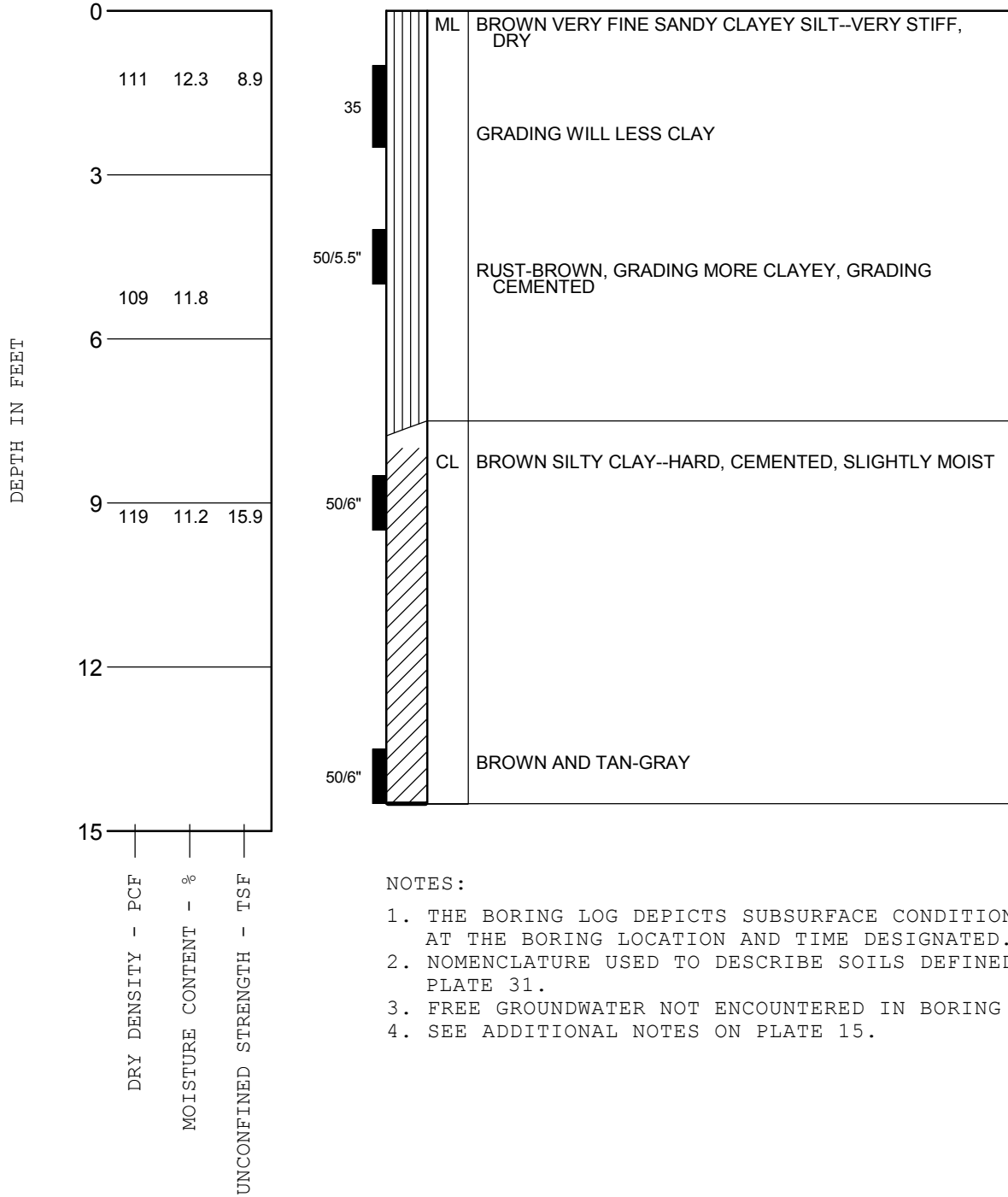


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 24

BORING 10

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 10.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

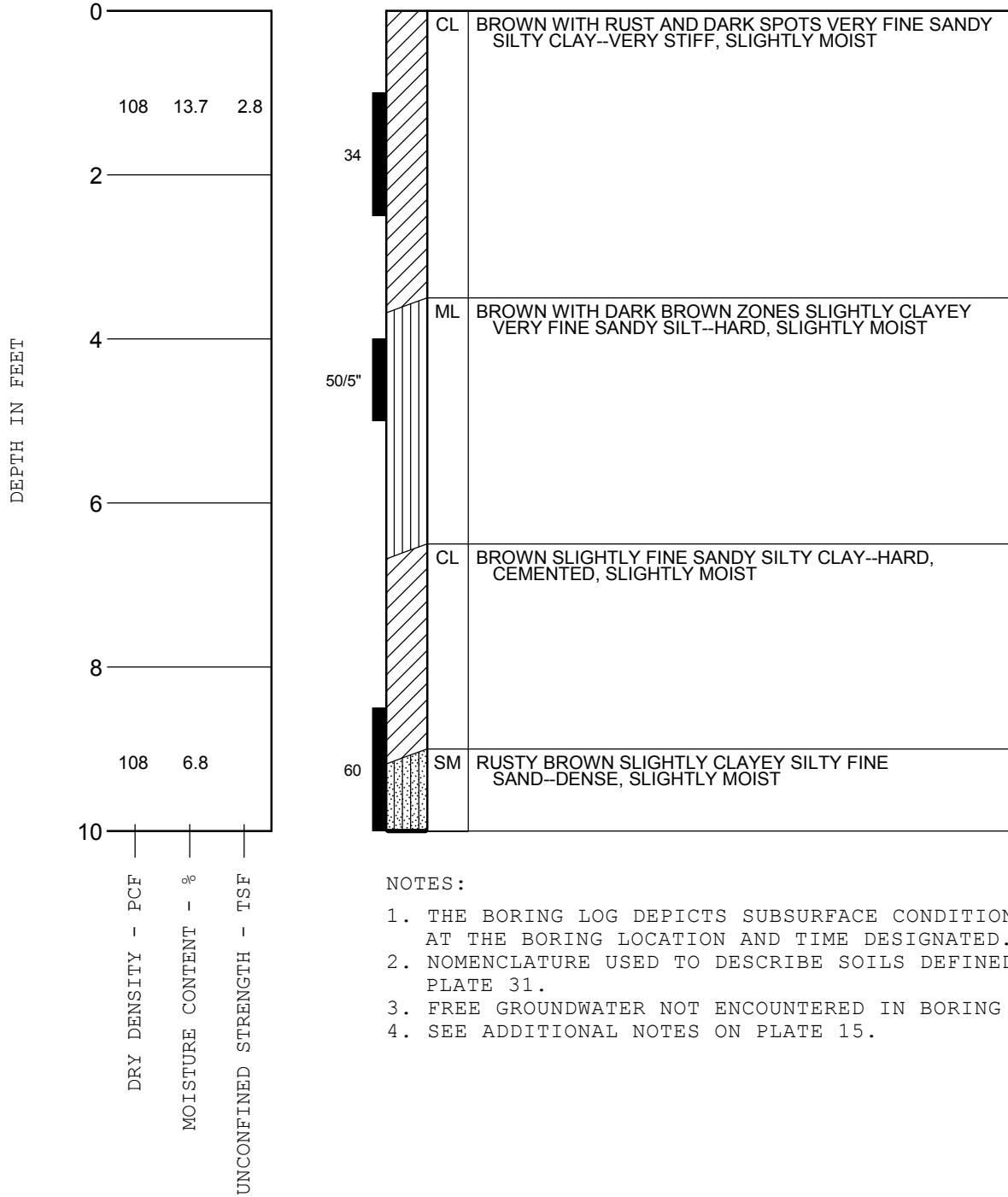


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 25

BORING 11

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 11.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

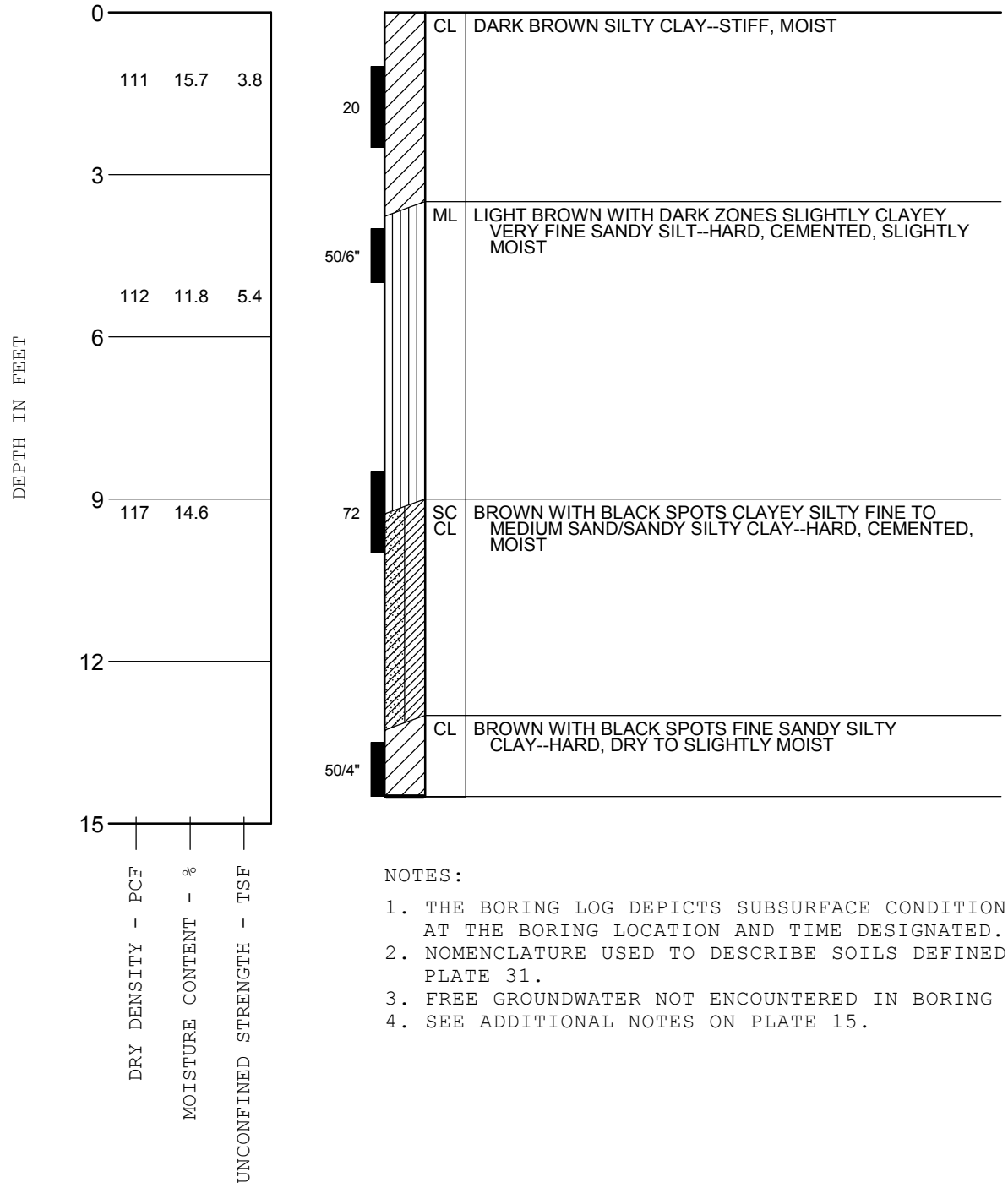


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 26

BORING 12

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 12.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

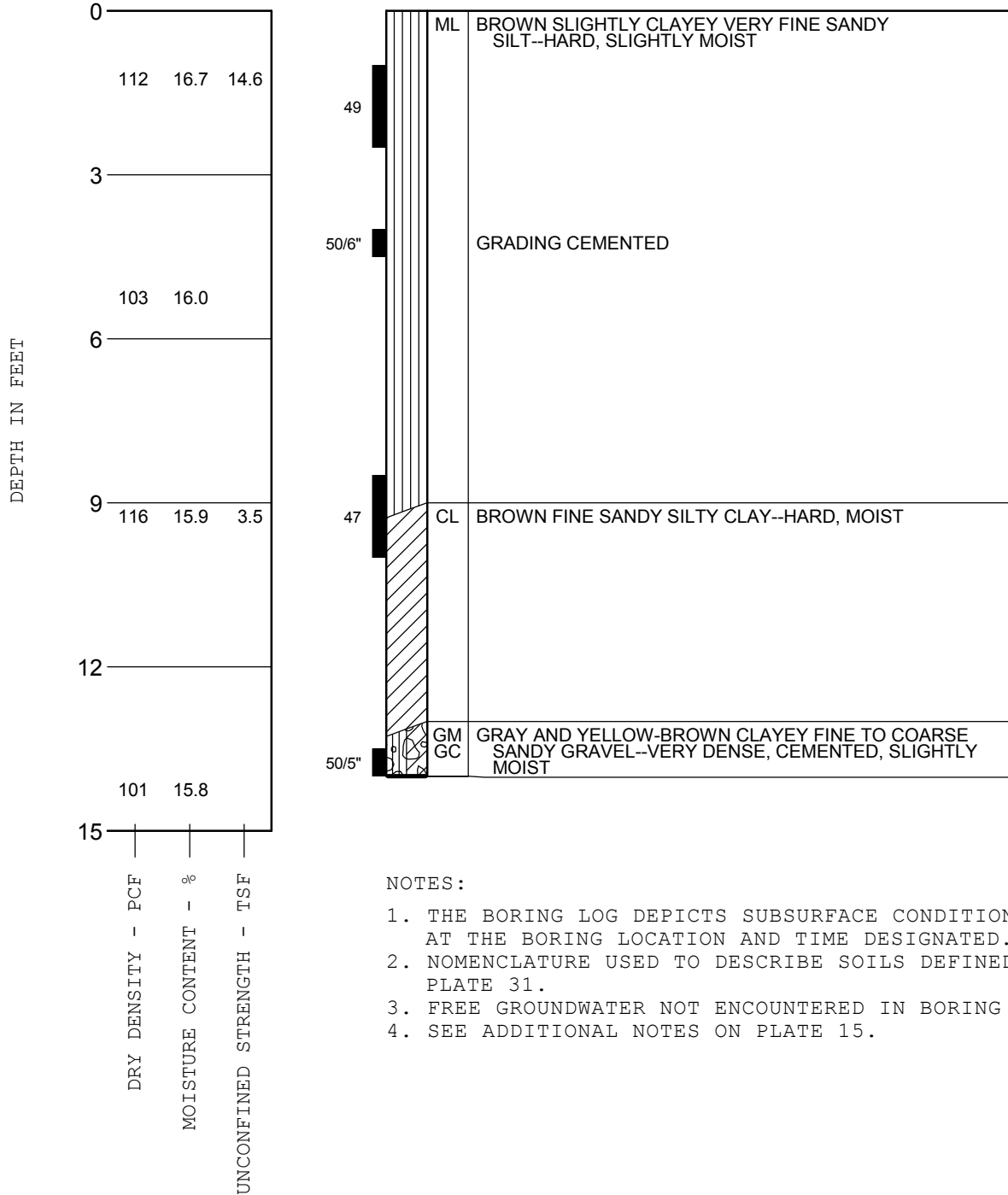


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 27

BORING 13

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 13.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

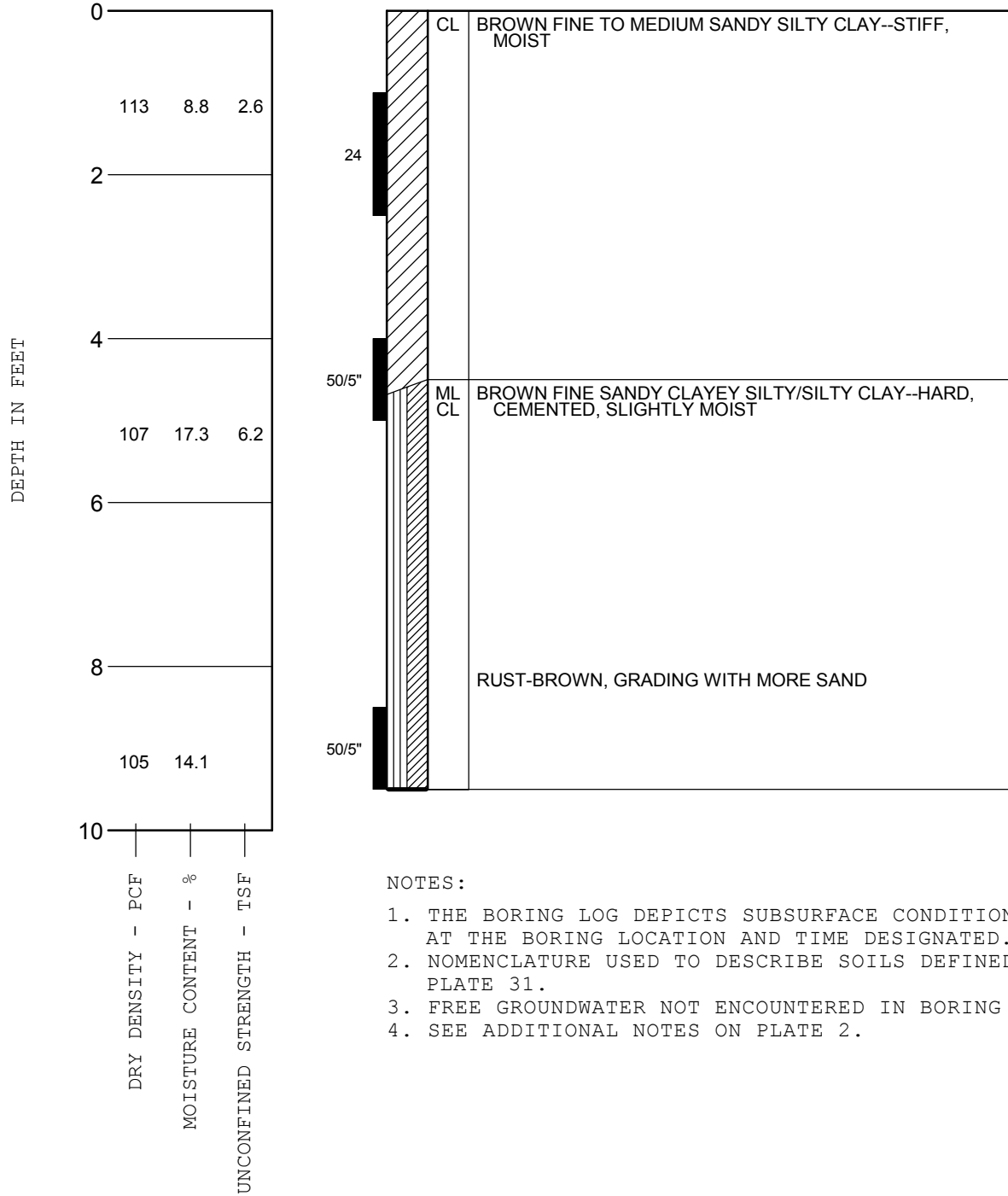


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 28

BORING 14

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 14.
4. SEE ADDITIONAL NOTES ON PLATE 2.

LOG OF BORING

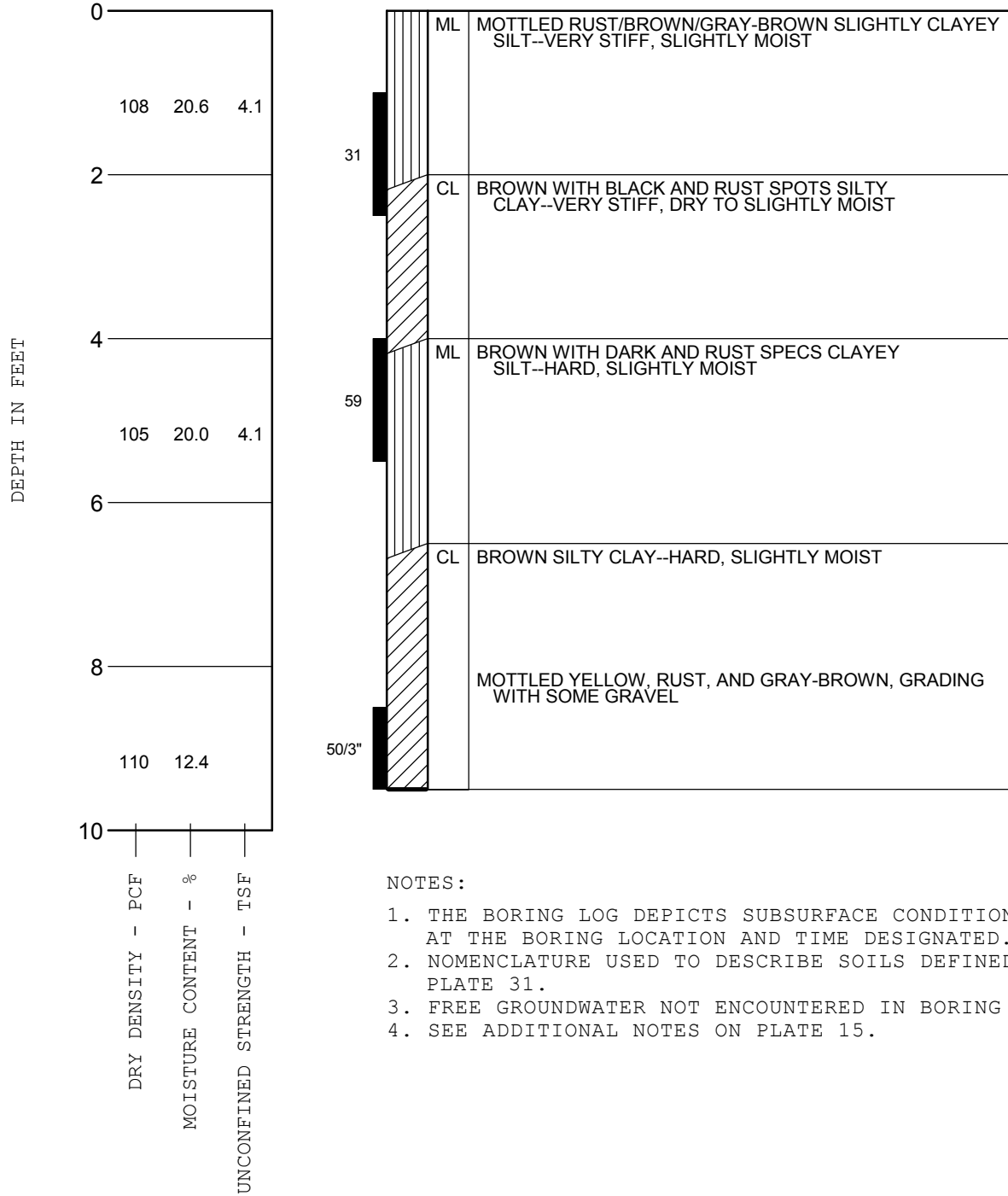


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 29

BORING 15

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 15.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

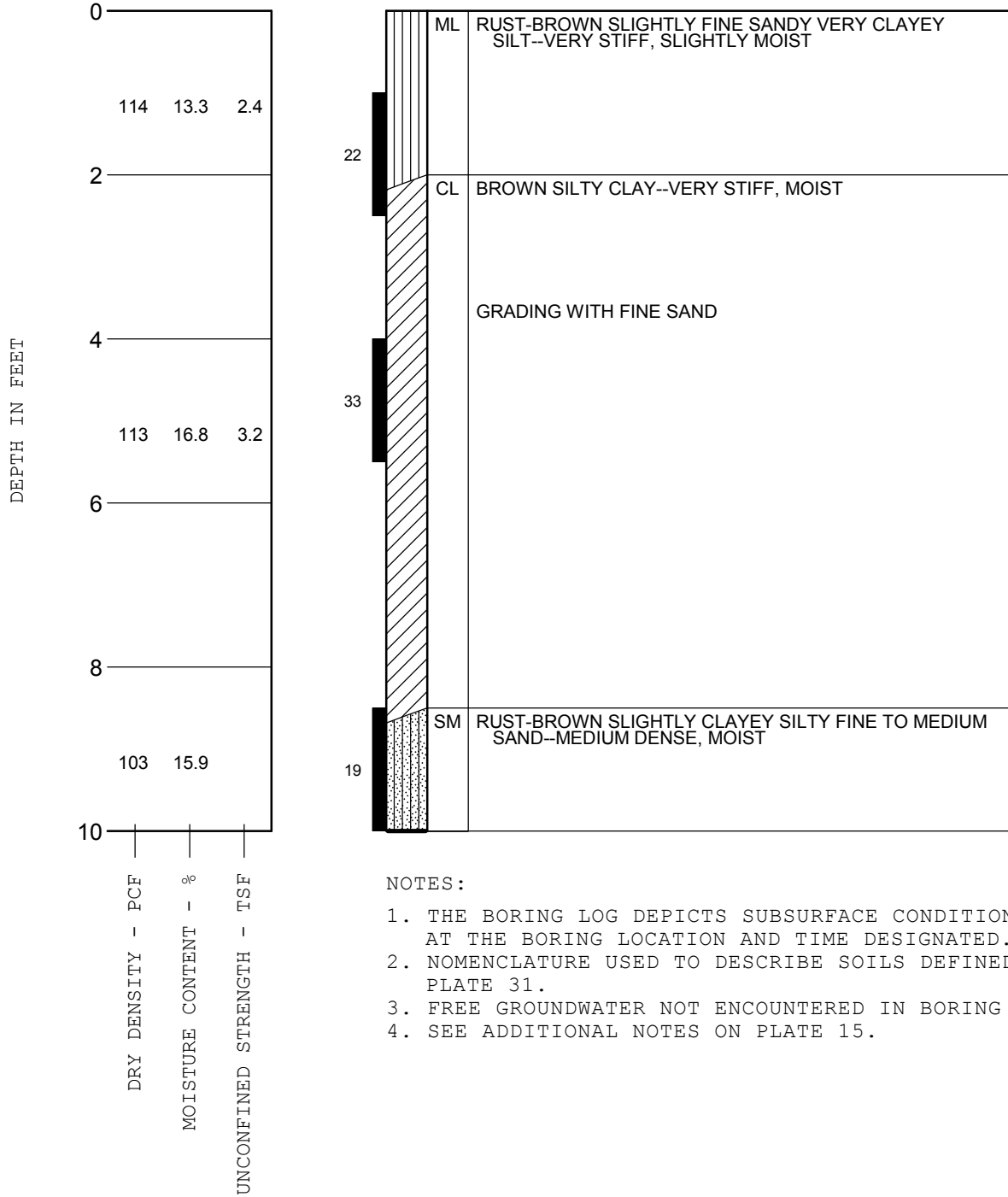


PROJECT NUMBER: 2462-001
 DRAWN BY: JCB
 DATE: 1/14/04

PLATE NUMBER: 30

BORING 16

DRILLED: 9/10/03



NOTES:

1. THE BORING LOG DEPICTS SUBSURFACE CONDITIONS ONLY AT THE BORING LOCATION AND TIME DESIGNATED.
2. NOMENCLATURE USED TO DESCRIBE SOILS DEFINED ON PLATE 31.
3. FREE GROUNDWATER NOT ENCOUNTERED IN BORING 16.
4. SEE ADDITIONAL NOTES ON PLATE 15.

LOG OF BORING

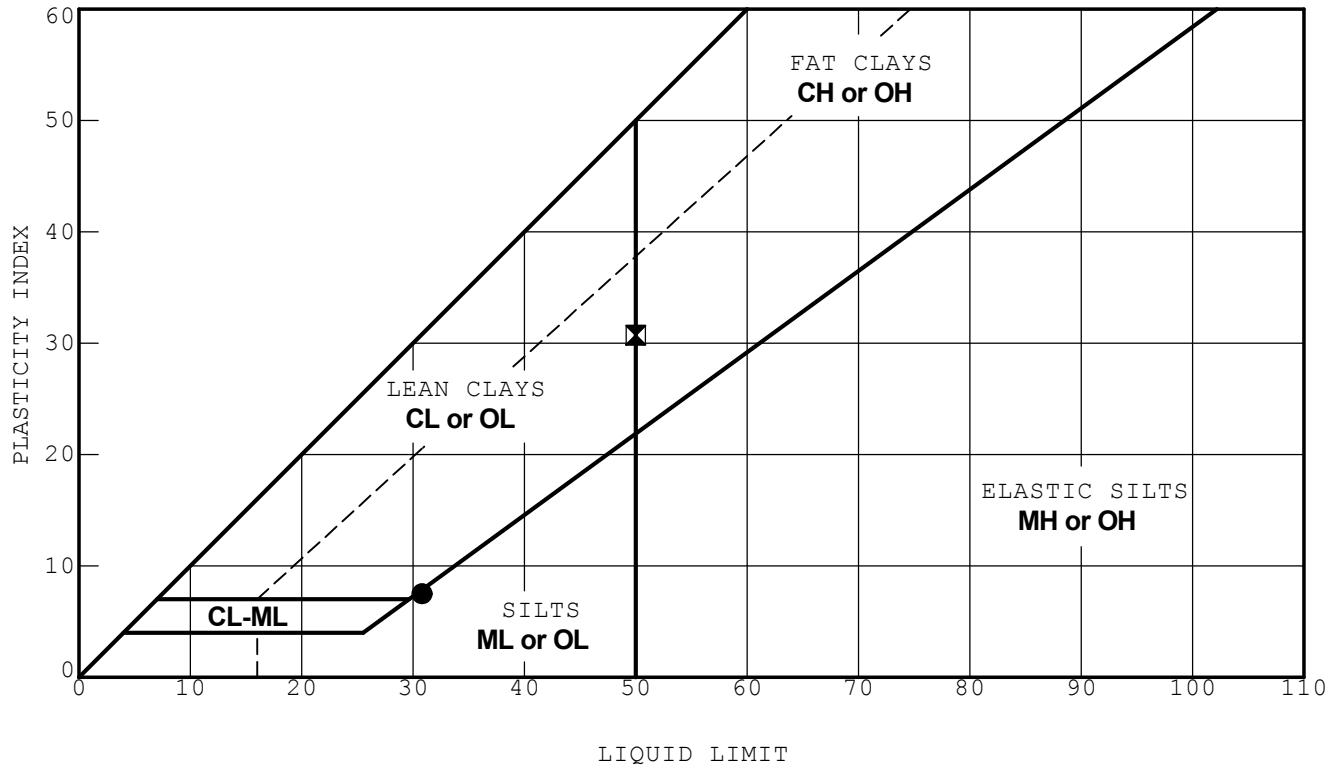


PROJECT NUMBER: 2462-001
 PLATE NUMBER: 31

GRAPH	SYMBOL	DESCRIPTION	MAJOR DIVISIONS		
	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES	CLEAN GRAVELS WITH LESS THAN 5% FINES	GRAVEL AND GRAVELLY SOILS	COARSE GRAINED SOILS MORE THAN 50% LARGER THAN NO. 200 SIEVE
	GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES			
	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	GRAVELS WITH MORE THAN 12% FINES	MORE THAN 50% OF COARSE FRACTION <u>RETAINED</u> ON NO. 4 SIEVE	
	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES			
	SW	WELL GRADED SANDS, GRAVELLY SANDS	CLEAN SANDS WITH LESS THAN 5% FINES	SANDS AND SANDY SOILS	
	SP	POORLY GRADED SANDS, GRAVELLY SANDS			
	SM	SILTY SANDS, SAND-SILT MIXTURES	SANDS WITH MORE THAN 12% FINES	MORE THAN 50% OF COARSE FRACTION <u>PASSING</u> NO. 4 SIEVE	
	SC	CLAYEY SANDS, SAND-CLAY MIXTURES			
	ML	INORGANIC SILTS, ROCK FLOUR, OR CLAYEY SILTS WITH SLIGHT PLASTICITY	LIQUID LIMIT <u>LESS</u> THAN 50	SILTS AND CLAYS	FINE GRAINED SOILS MORE THAN 50% SMALLER THAN NO. 200 SIEVE
	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS			
	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY			
	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS SILTS, ELASTIC SILTS	LIQUID LIMIT <u>GREATER</u> THAN 50	SILTS AND CLAYS	
	CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS			
OH	ORGANIC CLAYS AND ORGANIC SILTS OF MEDIUM TO HIGH PLASTICITY				
	PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT	HIGHLY ORGANIC SOILS		

UNIFIED SOIL CLASSIFICATION SYSTEM





CLASSIFICATION TEST RESULTS						
SYMBOL	SAMPLE LOCATION	DEPTH FEET	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	SOIL CLASSIFICATION
●	BORING 11	0.5	31	23	8	ML
⊠	BORING 5	1.0	50	19	31	CH

ATTERBERG LIMIT DATA



**RESISTANCE VALUE TEST
CALIFORNIA TEST METHOD 301G**

PROJECT NUMBER: 2462-001

Sample Location: S1

Depth: 6"-12"

Material Description: Dark brown clayey silt

TEST NUMBER	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	EXUDATION PRESSURE (PSI)	EXPANSION PRESSURE (PSF)	RESISTANCE VALUE
1	108	17.2	162	35	2
2	112	15.2	275	78	4
3	114	14.2	350	113	12

Resistance value at 300 psi exudation pressure = 6

RESISTANCE VALUE DATA

CALIFORNIA TEST METHOD NO. 373

James Hardie Distribution Center

Project No. 2462-001

Sample Location: S3

Depth: 6"-12"

Material Description: Brown clayey sandy silt

Additives: High calcium quicklime and portland cement as shown

Sample No.	Additive Amounts	Dry Density (pcf)	Moisture Content (%)	Maximum Dry Density/ Optimum Moisture Content	Unconfined Compressive Strength
A	5% lime	105.0	18.3	105pcf @ 18.3%	162 psi
B	5% lime	105.1	20.3		133 psi
C	5% lime	106.9	16.3		155 psi
D	3% lime 4% cement	107.4	18.3		232 psi
E	3% lime 5% cement	108.4	18.3		237 psi

TREATED SOIL COMPRESSIVE STRENGTH DATA

ORGANIC CONTENT
ASTM D2974/ASTM F1647/LOI

Sample No./ Depth	Description	Moisture Content (%)	Organic Content (%)
SA-1 0-12"	Gray clayey fine sandy silt with gravel	11.5	9.1
SA-2 0-12"	Light brown fine sandy silt	4.3	5.4
SA-3 0-11"	Light brown fine sandy silt with fruit pits and charcoal dust	14.6	6.9
SA-4 3"-12"	Gray and brown and black fine sandy clayey silt with gravel and charcoal dust	11.2	4.5
SA-5 2"-12"	Gray and brown and black fine sandy clayey silt with gravel and charcoal	11.8	3.7
SA-6 0-10"	Black and brown clayey fine sandy silt with gravel, charcoal and charcoal dust	14.9	10.7

ORGANIC CONTENT DATA

APPENDIX C

ONSITE HYDRAULICS DATA SUMMARY

Name	Scenario	Upstream Node Name	Link Name	Ground Elev (ft)	US Invert Elev (ft)	Max Water Elev (US) ft	Max Flow cfs	Max Vel (ft/s)	DS Node Name	Dia (ft)	Length ft	DS Invert Elev ft
A1-p	Base Scenario	A1 DMA	A1-p	48.3	44.69	48.33	2.1	2.65	A1-MH	1	164	44.28
A1-p	10-yr					46.2	1.1	1.92				
A1MH-p	Base Scenario	A1-MH	A1MH-p	50.3	44.28	48.1	2.2	2.74	A2 DMA	1	321	43.48
A1MH-p	10-yr					46.01	1.1	1.33				
A2-p	Base Scenario	A2 DMA	A2-p	47.4	43.48	47.65	10.5	3.33	A3 DMA	2	262	43.21
A2-p	10-yr					45.67	6.3	1.95				
A3-p	Base Scenario	A3 DMA	A3-p	47.4	43.21	47.43	17.6	3.55	A3a-MH	2.5	259	43.01
A3-p	10-yr					45.47	10.9	2.47				
A3aMH-p	Base Scenario	A3a-MH	A3aMH-p	51.0	43.01	47.05	19.5	3.91	A3b MH	2.5	167	42.87
A3aMH-p	10-yr					45.3	12.3	2.7				
A3bMH-p	Base Scenario	A3b MH	A3bMH-p	50.9	42.87	46.63	17.9	3.63	A3c MH	2.5	167	42.74
A3bMH-p	10-yr					45.13	12	2.61				
A3cMH-p	Base Scenario	A3c MH	A3cMH-p	50.7	42.74	46.18	18	3.61	A5 DMA	2.5	143	42.63
A3cMH-p	10-yr					44.96	12.1	2.67				
A4-p	Base Scenario	A4 DMA	A4-p	47.3	43.4	47.43	3.8	4.72	A3a-MH	1	102	43.2
A4-p	10-yr					45.6	2	2.51				
A5-p	Base Scenario	A5 DMA	A5-p	50.2	42.63	45.98	19.5	3.85	A9-MH-Brink	2.5	97	42.55
A5-p	10-yr					44.81	12.9	2.9				
A6-p	Base Scenario	A6 DMA	A6-p	48.2	44.01	48.28	4.3	2.42	A6-MH	1.5	235	43.56
A6-p	10-yr					46.08	1.7	1.53				
A6MH-p	Base Scenario	A6-MH	A6MH-p	48.6	43.56	48.37	4.3	2.43	A7 DMA	1.5	312	42.97
A6MH-p	10-yr					45.99	1.8	1.02				
A7-p	Base Scenario	A7 DMA	A7-p	50.0	42.97	48.11	10.9	3.44	A8 DMA	2	236	42.73
A7-p	10-yr					45.73	6.7	2.13				
A8-p	Base Scenario	A8 DMA	A8-p	47.3	42.73	47.4	19	5.99	A9-MH-Brink	2	235	42.55
A8-p	10-yr					45.46	11.6	3.63				
A9MH-p-out	Base Scenario	A9-MH-Brink	A9MH-p-out	51.1	42.55	45.98	37.4	7.82	BuzDB	2.5	80	42.5
A9MH-p-out	10-yr					44.69	23.5	5.87				
B1-p	Base Scenario	B1 MH	B1-p	48.5	44.57	47.17	6.9	2.12	B2 MH	2	474.7	44.1
B1-p	10-yr					46.24	5.4	1.93				
B1a-p	Base Scenario	B1a DMA	B1a-p	48.1	44.8	47.4	2.2	2.77	B1 MH	1	91.5	44.57
B1a-p	10-yr					46.36	1.2	1.58				
B1b-p	Base Scenario	B1b DMA	B1b-p	46.9	44.67	47.25	7.1	3.99	B1 MH	1.5	64.8	44.57

B1b-p	10-yr					46.37	4.8	2.71				
B2-p	Base Scenario	B2 MH	B2-p	49.0	44.1	46.99	14.1	3.3	B3a MH	2.5	118	43.98
B2-p	10-yr					45.99	10.4	2.85				
B2a-p	Base Scenario	B2a DMA	B2a-p	48.4	44.4	47.05	1.4	1.77	B2 MH	1	47.4	44.1
B2a-p	10-yr					46.01	0.8	1.01				
B2b-p	Base Scenario	B2b DMA	B2b-p	46.9	44.3	47.18	7.5	4.22	B2 MH	1.5	127.7	44.1
B2b-p	10-yr					46.24	5	2.76				
B3-p	Base Scenario	B3 DMA	B3-p	48.8	44.5	46.95	0.4	0.72	B3a MH	1	48.4	44.37
B3-p	10-yr					45.93	0.2	0.69				
B3a-p	Base Scenario	B3a MH	B3a-p	49.0	43.98	46.94	13.3	2.98	B4 MH-DMA	2.5	343.7	43.64
B3a-p	10-yr					45.93	9.9	2.61				
B4-p	Base Scenario	B4 MH-DMA	B4-p	49.0	43.64	46.8	11.3	2.56	B9a MH	2.5	69.5	43.58
B4-p	10-yr					45.75	9	2.28				
B5a-p	Base Scenario	B5a MH+DMA	B5a-p	49.0	44.45	48.3	1.5	1.87	B6a MH+DMA	1	63	44.29
B5a-p	10-yr					46.02	0.8	1.05				
B6a-p	Base Scenario	B6a MH+DMA	B6a-p	49.4	44.29	48.18	4.1	2.29	B7a MH+DMA	1.5	393.2	44.05
B6a-p	10-yr					46	1.9	1.21				
B7a-p	Base Scenario	B7a MH+DMA	B7a-p	49.0	44.05	47.46	8.2	2.59	B8a MH+ DMA	2	362.3	43.82
B7a-p	10-yr					45.85	3.8	1.32				
B8a-p	Base Scenario	B8a MH+ DMA	B8a-p	49.0	43.82	46.9	10.8	3.42	B9a MH	2	47.3	43.64
B8a-p	10-yr					45.74	5	1.6				
B9a-p	Base Scenario	B9a MH	B9a-p	49.5	43.58	46.77	19.1	3.77	B9b MH	2.5	182	43.39
B9a-p	10-yr					45.72	13.4	3.16				
B9b-p	Base Scenario	B9b MH	B9b-p	50.3	43.39	4.64E+01	18.3	3.67	B9c MH	2.5	315	43.08
B9b-p	10-yr					4.55E+01	13.1	3.14				
B9c-p	Base Scenario	B9c MH	B9c-p	48.6	43.08	45.99	17.5	3.67	B9d MH	2.5	236	42.84
B9c-p	10-yr					45.06	12.9	3.18				
B9d-p	Base Scenario	B9d MH	B9d-p	48.5	42.84	45.99	17.4	4.1	B9e MH-Wtrmr	2.5	267	42.58
B9d-p	10-yr					44.7	12.8	3.61				
B9e-MH-p-out	Base Scenario	B9e MH-Wtrmr	B9e-MH-p-out	50.3	42.58	45.98	17.4	5.23	BuzDB	2.5	76	42.5
B9e-MH-p-out	10-yr					44.61	12.8	4.65				
Buzz-Weir	Base Scenario	BuzDB	BuzDBout	51.9		-9E+99	-32.3	0	4.95us			
Buzz-Weir	10-yr					-9E+99	-3.4	0				
DB-p-out	Base Scenario	BuzDB	BuzDBout	51.9	41.8	45.97	17.4	3.54	4.95us	2.5	114	41.47
DB-p-out	10-yr					44.61	11.3	3.05				

APPENDIX D

LID SPREADSHEET

Appendix D-2: Commercial Sites: Low Impact Development (LID) Credits and Treatment BMP Sizing Calculations

Name of Drainage Shed: Fill in Blue Highlighted boxes
 Location of project:

Step 1 - Open Space and Pervious Area Credits

Is your project within the drainage area of a common drainage plan that includes open space? If not, skip to 1 b.

1 a. Common Drainage Plan Area acres A_{CDP}

Common Drainage Plan Open Space (Off-project) acres A_{OS}

a. Natural storage reservoirs and drainage corridors acres

b. Buffer zones for natural water bodies acres

c. Natural areas including existing trees, other vegetation, and soil acres

d. Common landscape area/park acres

e. Regional Flood Control/Drainage basins acres

see area example below

1 b. Project Drainage Shed Area (Total) acres A

Project-Specific Open Space (In-project, communal)** acres A_{PSOS}

a. Natural storage reservoirs and drainage corridors acres

b. Buffer zones for natural water bodies acres

c. Natural areas including existing trees, other vegetation, and soil acres

d. Landscape area/park acres

e. Flood Control/Drainage basins acres

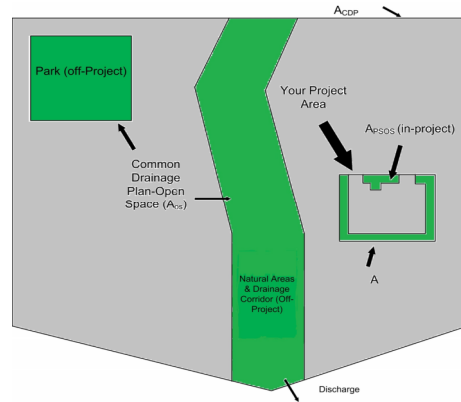
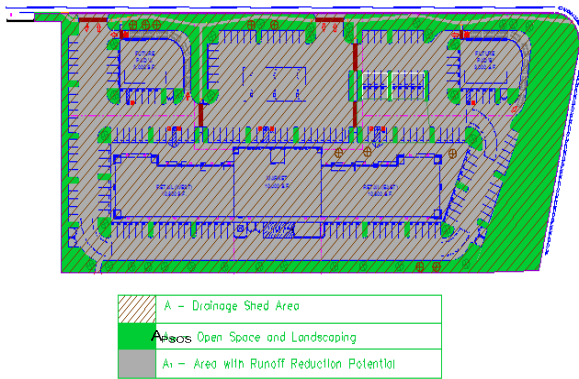
see area example below

** Doesn't include impervious areas within individual lots and surrounding individual units. That is accounted for below using Form D-1a in Step 2.

Area with Runoff Reduction Potential $A - A_{PSOS} =$ acres A_T

Assumed Initial Impervious Fraction $A_T / A =$ I

Open Space & Pervious Area LID Credit (Step 1)
 $(A_{OS}/A_{CDP} + A_{PSOS}/A) \times 100 =$ pts



Step 2 - Runoff Reduction Credits

Runoff Reduction Treatments	Impervious Area Managed	Efficiency Factor	Effective Area Managed (A _c)
Porosity Pavement:			
Option 1: Porous Pavement (see Fact Sheet, excludes porous pavement used in Option 2)	<input type="text" value="0"/> acres	x <input type="text" value=""/>	= <input type="text" value="0.000"/> acres
Option 2: Disconnected Pavement (see Fact Sheet, excludes porous pavement used in Option 1)	use Form D-2a for credits	→	= <input type="text" value="0.00"/> acres
Landscaping used to Disconnect Pavement (see Fact Sheet)	<input type="text" value="0.0000"/> acres	=	= <input type="text" value="0.00"/> acres
Disconnected Roof Drains (see Fact Sheet and/or Table D-2b for summary of requirements)	<input type="text" value="0"/> acres	=	= <input type="text" value="0.00"/> acres
Ecoroof (see Fact Sheet)	<input type="text" value="0"/> acres	=	= <input type="text" value="0.00"/> acres
Interceptor Trees (see Fact Sheet)	use Form D-2b for credits	→	= <input type="text" value="0.03"/> acres
Total Effective Area Managed by Runoff Reduction Measures		A_c	= <input type="text" value="0.03"/> acres

Runoff Reduction Credit (Step 2) $(A_c / A_T) \times 100 =$ pts

Table D-2a

Porous Pavement Type	Efficiency Multiplier
Cobblestone Block Pavement	0.40
Pervious Concrete/Asphalt	0.60
Modular Block Pavement &	0.75
Reinforced Grass Pavement	1.00

Table D-2b

Maximum roof size	Minimum travel distance
≤ 3,500 sq ft	21 ft
≤ 5,000 sq ft	24 ft
≤ 7,500 sq ft	28 ft
≤ 10,000 sq ft	32 ft

Form D-2a: Disconnected Pavement Worksheet

See Fact Sheet for more information regarding Disconnected Pavement credit guidelines

Effective Area Managed (A_c)

Pavement Draining to Porous Pavement

2. Enter area draining onto Porous Pavement acres Box K1

3. Enter area of Receiving Porous Pavement acres Box K2
(excludes area entered in Step 2 under Porous Pavement)

4. Ratio of Areas (Box K1 / Box K2) Box K3

5. Select multiplier using ratio from Box K3 and enter into Box K4

Ratio (Box D)	Multiplier
Ratio is ≤ 0.5	1.00
Ratio is > 0.5 and < 1.0	0.83
Ratio is > 1.0 and < 1.5	0.71
Ratio is > 1.5 and < 2.0	0.55

Box K4

6. Enter Efficiency of Porous Pavement (see table below) Box K5

Porous Pavement Type	Efficiency Multiplier
Cobblestone Block Pavement	0.40
Pervious Concrete Asphalt Pavement	0.60
Modular Block Pavement	0.75
Porous Gravel Pavement	0.75
Reinforced Grass Pavement	1.00

7. Multiply Box K2 by Box K5 and enter into Box K6 acres Box K6

8. Multiply Boxes K1, K4, and K5 and enter the result in Box K7 acres Box K7

9. Add Box K6 to Box K7 and multiply by 60%, and enter the Result in Box K8 acres Box K8

This is the amount of area credit to enter into the "Disconnected Pavement" Box of Form D-2

Form D-2b: Interceptor Tree Worksheet

See Fact Sheet for more information regarding Interceptor Tree credit guidelines

New Evergreen Trees

- 1. Enter number of new evergreen trees that qualify as Interceptor Trees in Box L1. trees Box L1
- 2. Multiply Box L1 by 200 and enter result in Box L2 sq. ft. Box L2

New Deciduous Trees

- 3. Enter number of new deciduous trees that qualify as Interceptor Trees in Box L3. trees Box L3
- 4. Multiply Box L3 by 100 and enter result in Box L4 sq. ft. Box L4

Existing Tree Canopy

- 5. Enter square footage of existing tree canopy that qualifies as Existing Tree canopy in Box L5. sq. ft. Box L5
- 6. Multiply Box L5 by 0.5 and enter the result in Box L6 sq. ft. Box L6

Total Interceptor Tree EAM Credits

- Add Boxes L2, L4, and L6 and enter it into Box L7 sq. ft. Box L7
 - Divide Box L7 by 43,560 and multiply by 20% to get effective area managed and enter result in Box L8 acres Box L8
- This is the amount of area credit to enter into the "Interceptor Trees" Box of Form D-2

Step 3 - Runoff Management Credits

Capture and Use Credits

Impervious Area Managed by Rain barrels, Cisterns, and automatically-emptied systems

(see Fact Sheet) enter gallons, for simple rain barrels acres

Automated-Control Capture and Use System

(see Fact Sheet, then enter impervious area managed by the system) acres

Bioretention/Infiltration Credits

Impervious Area Managed by Bioretention BMPs

(see Fact Sheet) Bioretention Area sq ft
 Subdrain Elevation inches
 Ponding Depth, inches inches acres

Impervious Area Managed by Infiltration BMPs

(see Fact Sheet) Drawdown Time, hrs drawdown_hrs_inf
 Soil Infiltration Rate, in/hr soil_inf_rate

Sizing Option 1: Capture Volume, acre-ft capture_vol_inf acres

Sizing Option 2: Infiltration BMP surface area, sq ft soil_surface_area acres

Basin or trench? approximate BMP depth ft

Impervious Area Managed by Amended Soil or Mulch Beds

(see Fact Sheet) Mulched Infiltration Area, sq ft mulch_area acres

Total Effective Area Managed by Capture-and-Use/Bioretention/Infiltration BMPs A_{LIDc}

Runoff Management Credit (Step 3) $A_{LIDc}/A_T * 200 =$ pts

Total LID Credits (Step 1+2+3) LID compliant, check for treatment sizing in Step 4

Does project require hydromodification management? If yes, proceed to using SachHM.

Adjusted Area for Flow-Based, Non-LID Treatment $A_T - A_C - A_{LIDc} =$ A_{AT}

Adjusted Impervious Fraction of A for Volume-Based, Non-LID Treatment $A_{AT} / A =$ I_A

Further treatment is required, see choose flow-based or volume-based sizing in Step 4

Step 4a Treatment - Flow-Based (Rational Method)

Calculate treatment flow (cfs):

$$\text{Flow} = \text{Runoff Coefficient} \times \text{Rainfall Intensity} \times \text{Area}$$

Look up value for i in Table D-2c (Rainfall Intensity)

i

Obtain A_{AT} from Step 3

A_{AT}

Use $C = 0.95$

C

$$\text{Flow} = 0.95 \cdot i \cdot A_{AT}$$

cfs

Table D-2c

Rainfall Intensity		
Roseville	$i =$	0.20 in/hr
Sacramento	$i =$	0.18 in/hr
Folsom	$i =$	0.20 in/hr

Step 4b Treatment - Volume-Based (ASCE-WEF)

Calculate water quality volume (Acre-Feet):

$$WQV = \text{Area} \times \text{Maximized Detention Volume } (P_0)$$

Obtain A from Step 1

A

hrs

Specified Draw Down time

Obtain P_0 : Maximized Detention Volume from figures E-1 to E-4 in Appendix E of this manual using I_h from Step 2.

P_0

Calculate treatment volume (acre-ft):

$$\text{Treatment volume} = A \times (P_0 / 12)$$

Acre-Feet

v06232012

APPENDIX E

WEST YOST TECH MEMO 10-17-11



TECHNICAL MEMORANDUM

DATE: October 17, 2011 Project No.: 475-00-11-01

TO: Kent Baker, Baker-Williams Engineering Group

FROM: Mark Kubik, R.C.E. #50963

SUBJECT: Hydraulic Analysis for South County Business Park

BACKGROUND

The South County Business Park is located along Waterman Road in the City of Elk Grove (See Figure 1). A portion of the business park is undeveloped, but is proposed for future industrial development. This future development area covers approximately 58 acres. Elk Grove Creek runs along the north boundary of the future development area, and according to studies prepared by Federal Emergency Management Agency (FEMA) and the City of Elk Grove (City's), a portion of the site lies within the creek's 100-year floodplain. To develop this portion of the property, it will be necessary to place fill in the floodplain, which could cause an increase in flows and water surface elevations in the creek. Development of the site could also increase the runoff draining from the site into the creek, which could have additional impacts. West Yost Associates (West Yost) performed a hydrologic and hydraulic study to determine the potential impacts of the project and to define the improvements required to mitigate those impacts. This technical memorandum (memorandum) describes the study and presents the results.

APPROACH

The general tasks performed by West Yost for this study are described below. More detailed descriptions for the tasks are provided later in this memorandum.

1. Establish Existing Conditions - For this task, we calculated flood flows and water surface elevations in Elk Grove Creek under existing conditions in the vicinity of the project. Flood flows and water surface elevations in the creek were calculated for the 2-, 10-, and 100-year storms. The 100-year floodplain was delineated on the project site.
2. Determine Potential Project Impacts - The potential impacts of the project on flows and water surface elevations in Elk Grove Creek were assessed. The effects of increased flood flows from the site and the placement of fill in the floodplain were evaluated. Post-project flows and water surface elevations were calculated in the creek for the 2-, 10-, and 100-year storms and compared against existing conditions.

3. Evaluate Mitigation Measures - Mitigation measures for the potential hydraulic impacts of the project were then identified and evaluated. The mitigation measures were focused on providing flood detention to reduce flows in the creek. For each mitigation alternative, flows and water surface elevations in the creek were calculated for the 2-, 10-, and 100-year.

EXISTING CONDITIONS

West Yost performed hydrologic and hydraulic modeling to calculate flood flows and water surface elevations in Elk Grove Creek under existing conditions. We started with the hydrologic and hydraulic modeling previously prepared for the City of Elk Grove's Storm Drainage Master Plan and refined the models to add more detail in the vicinity of the project. The City's master plan models were revised as follows:

- In the hydrologic model that is used to calculate flows into the creek (SacCalc), the project site is located within a watershed that covers a much larger area than just the project site. We subdivided this watershed into multiple subsheds to better represent the inflows into the creek in the vicinity of the project. The watershed limits in the vicinity of the project are shown on Figure 1.
- The hydraulic model that is used to calculate water surface elevations in the creek (HEC-RAS) was refined using detailed topographic mapping that was available for the project site. In the vicinity of the project, we used the detailed topographic data to refine the existing cross sections in the hydraulic model. We also added seven cross sections along the creek adjacent to the project site. This allowed for a more accurate assessment of the potential impacts of placing fill in the floodplain on the project site. The cross section locations in the vicinity of the project are shown on Figure 1.
- In the hydraulic model, Manning's n values in the reach adjacent to project were revised to better represent the existing channel conditions. The channel bottom in this reach is concrete; therefore, the Manning's n value for the channel bottom was set to 0.015.

Using the refined models, flood flows and water surface elevations in the creek were calculated for the 2-, 10-, and 100-year storms. The peak flows and water surface elevations at key locations are presented on Tables 1, 2, and 3. The results from the hydraulic model indicate that peak 2-year and 10-year water surface elevations in the creek are contained within the banks of the creek along the limits of the project. However, the peak 100-year water surface elevations in the creek are predicted to overtop the south bank of the creek along the western portion of the project site. The resulting flooding on the project site would reach a maximum depth of 2.8 feet and would cover approximately 5.4 acres. This confirms the findings by FEMA and the City's master planning effort, which also indicate that a portion of the project site lies within the 100-year floodplain. The limit of the 100-year floodplain on the project is shown on Figure 1.

POTENTIAL PROJECT IMPACTS

The potential hydrologic and hydraulic impacts of developing the project site were evaluated by revising the existing hydrologic and hydraulic models as follows:

- In the SacCalc hydrologic model, the subshed representing the project site was revised to represent fully developed conditions based on industrial land-use.
- The HEC-RAS hydraulic model was updated to represent the fill within the floodplain on the project site. The hydraulic model was also updated to include the developed condition inflow from the project site as calculated with the hydrologic model.

The results of the hydrologic modeling indicate that development of the project would significantly increase the peak flood flows from the project site. For example, the 100-year peak flow from the site is predicted to increase from 58 cubic feet per second (cfs) to 112 cfs, an increase of approximately 93 percent. However, the increase in peak flow from the site would not translate into a commensurate increase in peak flow in the creek. This is because the peak flow from the site is predicted to occur several hours before the peak flow in the creek. As a result, the model results indicate that the 100-year peak flow in Elk Grove Creek just downstream from the project would increase from 500 cfs to 512 cfs, a 2.4 percent increase.

Along with the increases in peak flows, there would also be increases in the peak water surface elevations in the creek due to the combined effect of the increased flows from the site and lost floodplain storage/conveyance due to the fill placed on the site. The peak 100-year water surface elevations in the creek adjacent to the project would be increased from 0.12 feet to 0.19 feet. The increases in water surface elevations would extend upstream past Waterman Road. At Waterman Road, the predicted increase in the peak 100-year water surface elevation is 0.12 feet. Downstream of the project, the increases in 100-year water surface elevations tend to be smaller, generally 0.06 feet or less, but they extend all the way downstream to the confluence with Laguna Creek. Because there are already potential flooding problems along the creek downstream of the project, any increase would be considered unacceptable. Peak flows and water surface elevations at key locations along the creek are presented on Tables 1, 2, and 3.

MITIGATION MEASURES

Alternative measures were evaluated for mitigating the potential impacts of the project on flood flows and water surface elevations in Elk Grove Creek. Three mitigation alternatives were considered.

Alternative 1A – On-Site Detention Option A

For Alternative 1A, an on-site detention basin would be constructed to provide flood control mitigation for the project. The exact location of the basin is flexible, but it would need to be located somewhere along the northern boundary of the project, adjacent to the Elk Grove Creek. Runoff from the site would be directed into the detention basin prior to being discharged into the creek. A pipe outlet would discharge runoff from the detention basin into the creek when water surface elevations in the creek are relatively low. When water surface elevations in the creek are high, runoff from the site would be stored in the detention basin. An overflow weir would be constructed between the basin and the creek.

The post-project HEC-RAS model was used to evaluate the required detention basin size to fully mitigate for the potential flood impacts of the project. Results from the model for the 100-year storm event indicate that the detention basin for Alternative 1 must provide 16.4 acre-feet of storage. The water storage elevation in the basin would be 45.3 feet (NGVD29). An overflow weir with a length of 50 feet at an elevation of 45.0 (NGVD29) would be constructed between the basin and the creek. An 18-inch outfall pipe with a flap gate would be constructed from the basin to the creek to drain the storage volume from the basin when the water surface elevation in the creek is low. The exact layout of the basin would not be determined until the time of development, but it is estimated that the area required for the basin would be about 3.6 acres. This assumes a bottom elevation of 39.0 feet (NGVD29), a top elevation of 46.3 feet (NGVD29), a bottom area of 2.2 acres, side slopes of 3 to 1 (horizontal to vertical) and a 25 foot access strip along the top of bank.

The resulting peak water surface elevations and flows in the creek for Alternative 1A are presented on Tables 1, 2, and 3. As shown on these tables, this alternative would reduce downstream flood flows and water surface elevations to existing conditions levels or less. Upstream of the project, the results predict a slight increase in water surface elevations for the 100-year storm. However, the increases reach a maximum of 0.02 feet and are considered negligible.

The detention basin could also be configured to provide stormwater quality treatment in addition to flood control detention. Based on the Stormwater Quality Design Manual for the Sacramento and South Placer Regions, May 2007, a treatment volume separate from the flood control volume of 3.5 acre-feet is required. This is based on a site area of 58.2 acres, 85 percent imperviousness, and a 48-hour drawdown time. Providing stormwater quality treatment in the basin would increase the approximate area for the basin from 3.6 acres to 4.3 acres.

Alternative 1B – On-Site Detention Option B

Alternative 1B would also include an on-site detention basin located at the northern end of the project site. However, for this alternative, runoff from the project site would be discharged directly to the creek rather than to the detention basin. To mitigate for project impacts, peak flows in the creek would be diverted to the detention basin over a weir during flood events. This alternative requires less storage volume than Alternative 1A because the flood storage of the basin is reserved until water surface elevations in the creek reach flood levels. For this alternative, the detention basin would be located at the northeast corner upstream of the floodplain fill area. An 18-inch pipe outlet with a flap gate would discharge runoff from the detention basin into the creek when water surface elevations in the creek are relatively low.

The post-project HEC-RAS model was used to evaluate the required detention basin size to fully mitigate for the potential flood impacts of the project. Results from the model for the 100-year storm event indicate that the detention basin for Alternative 1B must provide 11.3 acre-feet of storage. The peak water storage elevation in the basin would be 45.3 feet (NGVD29). An overflow weir with a length of 30 feet at an elevation of 43.1 (NGVD29) would be constructed between the basin and the creek. An 18-inch outfall pipe with a flap gate would be constructed from the basin to the creek to drain the storage volume from the basin when the water surface elevation in the creek recedes. The exact layout of the basin would not be determined until the time of development, but it is estimated that the area required for the basin would be about 2.7 acres. The resulting peak water surface elevations and flows in the creek for Alternative 1B are presented on Tables 1, 2, and 3. As

shown on these tables, this alternative would reduce downstream flood flows and water surface elevations to existing conditions levels or less. There are a couple of locations where the water surface elevation is predicted to increase by 0.01 feet for the 2-year storm event. These increases are considered negligible.

It may be possible to provide stormwater quality treatment in the basin by only discharging low flows to the basin and high flows directly to the creek. However, it is likely some efficiency would be lost with this approach and adding stormwater quality treatment to the basin would increase the required storage volume by more than the 3.5 acre-feet needed for Alternative 1A. It may be more desirable to provide stormwater quality treatment with low impact development techniques incorporated into the landscape features of the project.

Alternative 2 – Off-Site Detention

For Alternative 2, flood mitigation is provided by expanding the storage volume in an existing off-site detention basin located upstream of the project, just east of Waterman Road. This detention basin, referred to as the Hudson Basin (see Figure 1), was constructed to provide stormwater quality treatment and flood control detention for an existing development project nearby. The basin is also planned for expansion to provide flood control for the additional development proposed within the watershed as a part of the East Elk Grove Specific Plan. For this study, modeling was performed to determine the additional volume required in the basin to mitigate for development of the South County Business Park.

Some adjustments to the City's HEC-RAS model were required before Alternative 2 could be assessed. As a part of their East Area Storm Drainage Master Plan, the City had a hydrologic model created for the upper portion of the Elk Grove Creek watershed, east of Waterman Road. That model was based on fully developed conditions in the watershed. As a part of the subsequent City-wide master plan, the City had modeling prepared for the entire Elk Grove Creek watershed for both existing and fully developed conditions. For this analysis of existing conditions, rather than create new models to represent the area upstream of Waterman Road, the fully developed models from East Area study were used and artificial detention was added to reduce the peak flows down to the existing condition peak flow rates that had been established by the drainage study for the East Elk Grove Specific Plan. The Hudson Basin was included in the model, but the basin configuration as modeled does not match the existing basin configuration. This may have been in part because the Hudson Basin was expanded after its original construction and the City's latest master plan model was created prior to the expansion.

For this study, the as-built plans for the existing Hudson Basin were obtained and the detention basin was added to the HEC-RAS model. Flow rates from the remainder of the watershed upstream of Waterman Road were adjusted such that the peak flows at Waterman Road matched the existing condition peak flows from the master plan models. This approach was adequate to determine the approximate detention volume to mitigate for the development of the South County Business Park. If this alternative is considered for implementation, additional modeling should be performed to more accurately represent existing conditions in the watershed upstream of Waterman Road.

Modeling results for Alternative 2 for the 100-year storm indicate that the Hudson Basin storage volume must be increased by 10.3 acre-feet. The peak water storage elevation would be 45.5 feet (NGVD29). This would require the basin to be expanded by approximately 1.7 acres. No changes to the existing outlet for the basin would be required. The resulting peak water surface elevations and flows in the creek for Alternative 2 are presented on Tables 1, 2, and 3. As shown on these tables, this alternative would reduce downstream flood flows and water surface elevations to existing conditions levels or less.

Stormwater quality treatment would be required on-site. This could be provided with an on-site detention basin that provides 3.5 acre-feet of storage, or with low impact development techniques incorporated into the landscape features of the project.

The City currently owns sufficient right-of-way to expand the detention basin to its full planned size based on the drainage study for the East Elk Grove Specific Plan. No area is available within that right-of-way for providing any additional volume. According to City staff, the owner of the land around the basin has indicated that they will not sell additional land to the City to expand the basin further. As a result, the feasibility of this alternative is uncertain at best.

SUMMARY AND RECOMMENDATIONS

Alternative 1B is recommended as the preferred project to provide flood mitigation for the South County Business Park. Alternative 1A is less efficient and requires a greater storage volume than Alternative 1B. Although Alternative 2 requires a similar storage volume as Alternative 1B, the feasibility of obtaining additional area to expand the Hudson Basin is uncertain at best.

Table 1. Peak Water Surface Elevations and Flows for the 2-Year Storm

HEC-RAS Station	Peak Water Surface Elevation, feet (NGVD29)					Peak Flow, cubic feet per second				
	Exist.	Post-Project w/o Mit.	Alt 1A	Alt 1B	Alt 2	Exist.	Post-Project w/o Mit.	Alt 1A	Alt 1B	Alt 2
5.229	42.34	42.34	42.31	42.34	42.25	155	155	155	155	148
5.163	42.03	42.03	42.00	42.03	41.94	156	156	156	156	149
5.12	41.92	41.93	41.89	41.93	41.83	156	156	156	156	149
5.097	41.86	41.87	41.82	41.86	41.77	156	156	156	156	149
5.044	41.68	41.69	41.64	41.69	41.59	164	164	163	164	156
5.025	41.62	41.62	41.57	41.62	41.52	164	163	163	163	156
4.95	41.49	41.51	41.44	41.50	41.41	163	163	163	164	156
4.923	41.44	41.46	41.40	41.46	41.36	166	168	163	168	160
4.9	41.41	41.43	41.37	41.43	41.33	166	168	163	168	160
4.856	41.29	41.31	41.25	41.30	41.21	168	169	163	169	161
4.852	41.06	41.08	41.02	41.07	40.98	168	169	164	169	161
4.847	39.75	39.70	39.64	39.70	39.59	168	169	164	169	161
4.822	39.77	39.73	39.67	39.73	39.62	168	169	164	169	161
4.785	39.72	39.68	39.62	39.68	39.58	178	180	175	180	172
4.69	39.63	39.58	39.52	39.58	39.47	178	180	175	180	172
4.685	39.59	39.54	39.47	39.53	39.43	178	180	175	180	172
4.665	39.28	39.21	39.16	39.21	39.11	178	180	175	180	172

Table 2. Peak Water Surface Elevations and Flows for the 10-Year Storm

HEC-RAS Station	Peak Water Surface Elevation, feet (NGVD29)					Peak Flow, cubic feet per second				
	Exist.	Post-Project w/o Mit.	Alt 1A	Alt 1B	Alt 2	Exist.	Post-Project w/o Mit.	Alt 1A	Alt 1B	Alt 2
5.229	43.98	43.99	43.95	43.88	43.87	301	301	301	303	292
5.163	43.71	43.73	43.67	43.58	43.60	302	302	302	305	293
5.12	43.62	43.64	43.58	43.50	43.51	302	302	302	290	294
5.097	43.57	43.59	43.52	43.45	43.46	302	302	303	290	295
5.044	43.43	43.45	43.37	43.31	43.31	315	315	318	304	310
5.025	43.38	43.40	43.32	43.26	43.26	315	316	319	305	311
4.95	43.28	43.30	43.22	43.16	43.17	322	320	323	306	313
4.923	43.23	43.26	43.18	43.12	43.12	334	328	326	314	321
4.9	43.20	43.23	43.15	43.08	43.08	339	333	329	316	323
4.856	43.08	43.11	43.02	42.95	42.96	344	343	336	327	326
4.852	42.80	42.83	42.75	42.68	42.70	345	343	336	328	326
4.847	41.66	41.68	41.57	41.65	41.49	345	343	337	328	326
4.822	41.80	41.82	41.72	41.78	41.67	344	343	336	327	326
4.785	41.77	41.79	41.69	41.76	41.64	361	360	355	342	346
4.69	41.72	41.73	41.63	41.70	41.57	359	356	349	341	344
4.685	41.66	41.67	41.56	41.64	41.50	359	356	349	341	344
4.665	41.23	41.23	41.13	41.22	41.06	359	356	349	341	344

Table 3. Peak Water Surface Elevations and Flows for the 100-Year Storm										
HEC-RAS Station	Peak Water Surface Elevation, feet (NGVD29)					Peak Flow, cubic feet per second				
	Exist.	Post-Project w/o Mit.	Alt 1A	Alt 1B	Alt 2	Exist.	Post-Project w/o Mit.	Alt 1A	Alt 1B	Alt 2
5.229	45.57	45.73	45.58	45.54	45.52	479	475	482	470	454
5.163	45.34	45.52	45.34	45.32	45.30	480	476	484	470	455
5.12	45.25	45.43	45.27	45.23	45.22	480	476	471	463	455
5.097	45.21	45.39	45.22	45.19	45.18	479	479	471	463	455
5.044	45.08	45.26	45.09	45.06	45.05	499	499	490	483	477
5.025	45.04	45.23	45.05	45.02	45.01	497	498	490	483	476
4.95	45.02	45.16	44.97	44.95	44.94	489	497	490	482	476
4.923	45.01	45.13	44.94	44.91	44.90	499	509	489	492	487
4.9	45.00	45.14	44.95	44.92	44.91	497	508	489	491	487
4.856	44.91	45.02	44.82	44.79	44.78	500	512	493	493	489
4.852	44.64	44.71	44.51	44.47	44.47	500	512	493	493	489
4.847	43.92	43.93	43.79	43.70	43.73	500	512	493	493	489
4.822	44.12	44.14	44.00	43.92	43.93	500	513	493	493	489
4.785	44.10	44.12	43.98	43.90	43.92	550	545	527	526	523
4.69	44.06	44.08	43.94	43.86	43.88	551	546	528	527	524
4.685	43.98	44.00	43.86	43.77	43.79	551	546	528	527	524
4.665	42.68	42.74	42.67	42.59	42.63	551	546	528	527	524

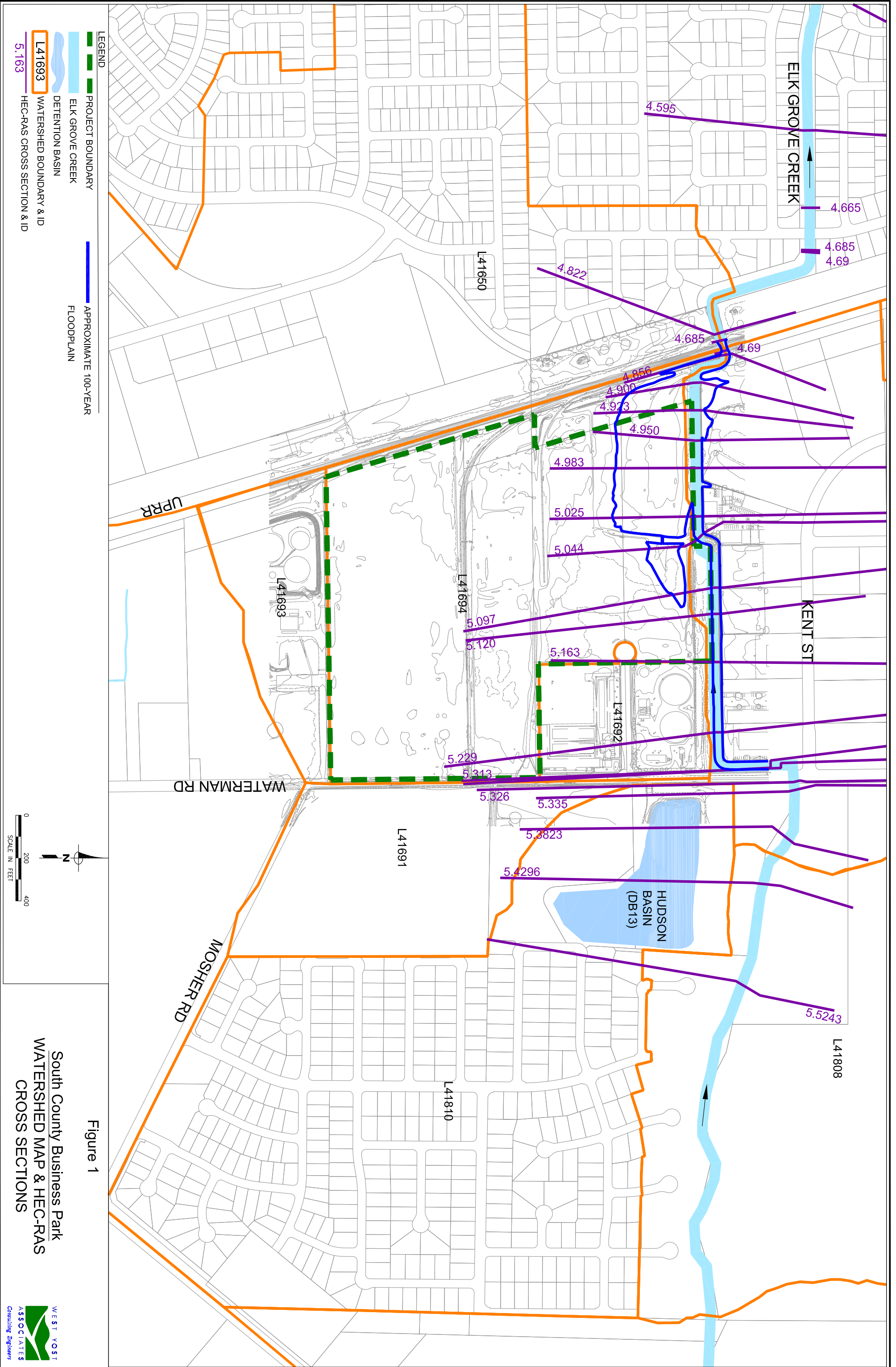


Figure 1

South County Business Park
WATERSHED MAP & HEC-RAS
CROSS SECTIONS

APPENDIX F

DETENTION BASIN STORAGE DATA

Appendix F. Stage-Storage-Elevation-Volume of Detention Basins- Elk Grove Cr at Waterman

=====

| Variable storage data for node | City_Basin

=====

Data Point	Elevation ft	Depth ft	Area ft^2	Volume ft^3	Area acres	Volume ac-ft
1	41.7500	0.0000	2178.0000	0.0000	0.0500	0.0000
2	42.7500	1.0000	87991.2000	34670.5815	2.0200	0.7959
3	43.7500	2.0000	99316.8000	128266.5263	2.2800	2.9446
4	44.7500	3.0000	110206.8000	232980.0799	2.5300	5.3485
5	45.7500	4.0000	120225.6000	348158.8109	2.7600	7.9926
6	46.7500	5.0000	130680.0000	473574.0410	3.0000	10.8718
7	47.7500	6.0000	140698.8000	609231.2509	3.2300	13.9860
8	52.9000	11.1500	140698.8000	1.33383E+06	3.2300	30.6205

=====

| Variable storage data for node | Hudson Basin

=====

Data Point	Elevation ft	Depth ft	Area ft^2	Volume ft^3	Area acres	Volume ac-ft
1	35.8300	0.0000	4356.0000	0.0000	0.1000	0.0000
2	40.8300	5.0000	176853.6000	348271.8791	4.0600	7.9952
3	41.8300	6.0000	187743.6000	530541.5446	4.3100	12.1796
4	42.8300	7.0000	198633.6000	723702.6301	4.5600	16.6139
5	43.8300	8.0000	209523.6000	927754.9723	4.8100	21.2983
6	44.8300	9.0000	220849.2000	1.14291E+06	5.0700	26.2377
7	45.8300	10.0000	232610.4000	1.36962E+06	5.3400	31.4421
8	46.8300	11.0000	243936.0000	1.60786E+06	5.6000	36.9115
9	47.8300	12.0000	255697.2000	1.85766E+06	5.8700	42.6459
10	48.8300	13.0000	267894.0000	2.11943E+06	6.1500	48.6553
11	50.9000	15.0700	267894.0000	2.67397E+06	6.1500	61.3858

=====

| Variable storage data for node | BuzDB

=====

Data Point	Elevation ft	Depth ft	Area ft^2	Volume ft^3	Area acres	Volume ac-ft
1	41.8000	0.0000	435.6000	0.0000	0.0100	0.0000
2	42.4000	0.6000	37897.2000	8479.0765	0.8700	0.1947
3	43.4000	1.6000	61419.6000	57666.0269	1.4100	1.3238
4	44.4000	2.6000	72309.6000	124455.9354	1.6600	2.8571
5	46.4000	4.6000	87991.2000	284498.8421	2.0200	6.5312
6	47.4000	5.6000	94960.8000	375951.7938	2.1800	8.6307
7	48.0000	6.2000	98010.0000	433840.0457	2.2500	9.9596

APPENDIX G

BASIN USER MANUAL

Waterman and Brinkman Logistics Center

Basin User Manual

CITY OF ELK GROVE, SACRAMENTO COUNTY, CALIFORNIA

PREPARED FOR:
Buzz Oates Construction



February 7, 2024



PREPARED BY:
Watermark Engineering Inc.
3153 Jenna Court
Roseville, CA 95747
Ph: 916. 774.1111
Email: pstiehr@wtrmark.com

Table of Contents

I. Introduction..... 3
I.A. Project Description..... 3

II. Designation of Responsible Individuals 3
II.A. Contact Information for Responsible Individuals 3

III. Basin Access 4
III.A. Current Basin Access 4
III.A. Future/Ultimate Basin Access 4

IV. Inflow Points..... 5

V. Forebay 5

VI. Outfall Structure 5

VII. Weir 5

Attachments

- A. Project Drawings

I. Introduction

I.A. Project Description

The Waterman Brinkman Logistics Center project consists of nearly 30 acres of proposed commercial/ light industrial type development. There are two separate buildings located on two separate sites, one at the end of Brinkman Court and the other is just to the southeast, fronting Waterman Road. The stormwater quality and onsite attenuation for both of these developments will be handled in the single proposed basin. In large storm events, the basin will accept water from the adjacent Elk Grove Creek, to help alleviate flows during the peak of the storm event.

Both sites will gravity flow into the basin through storm drain and headwalls located in the southwest corner. The bottom of the basin also has LID and water quality features. During design storm events, flows will exit the basin into the headwall and storm drain system located in the northwest corner, entering Elk Grove Creek.

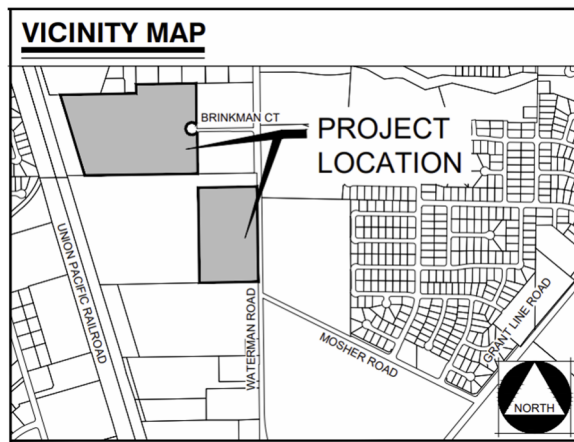


Figure 1: Vicinity Map

II. Designation of Responsible Individuals

II.A. Contact Information for Responsible Individuals

Designated Contact for Operation and Maintenance	
Name: Kristina Perle, CMCP	Title or Position: Property Manager
Telephone: 916.3793855	After Hours Emergency: 916.701.9500
Email: KristinaPerle@Buzzoates.com	

III. Basin Access

III.A. Current Basin Access

See Figure 2 below for the current basin access route. Extreme safety should be used when accessing the basin and routine maintenance should only be performed by trained personnel.

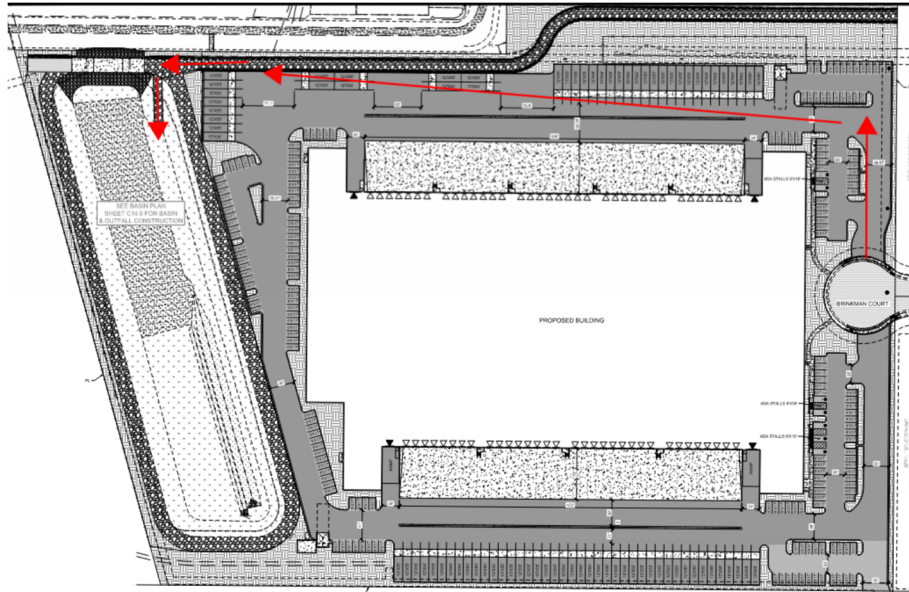


Figure 2: Current Basin Access Route

III.A. Future/Ultimate Basin Access

The site is developing a portion of a future trial system which will also serve as access to the basin in the ultimate condition.

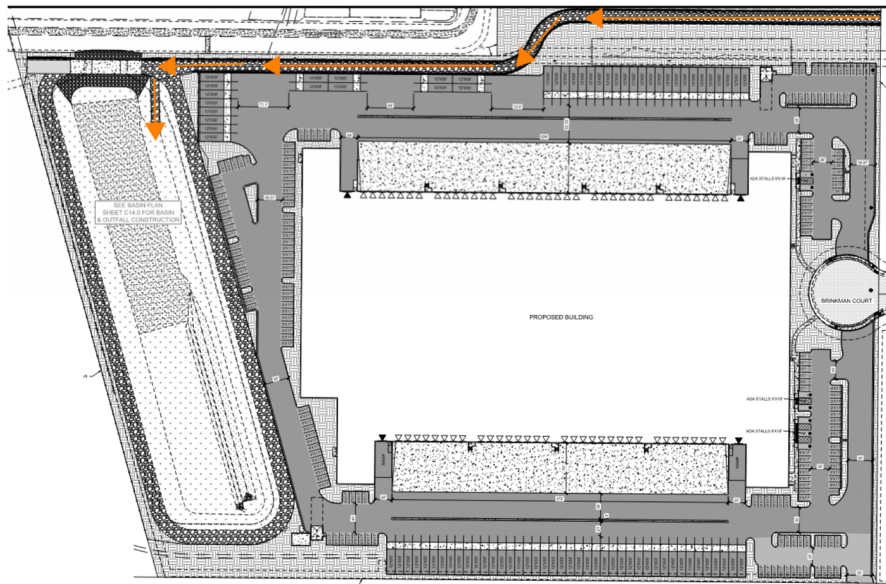


Figure 3: Future/Ultimate Basin Access Route

IV. Inflow Points

Inflow points are point source locations for stormwater discharge into the basin. Each site will discharge into the basin through a separate storm drain system and terminate in a headwall with an energy dissipater. The riprap energy dissipater is immediately down stream each concrete headwall. By armoring the outfalls with riprap, this will help protect against erosion from the incoming flows. These structures and energy dissipaters can be seen in Appendix A.

V. Forebay

Once the inflow enters the basin from the two separate sites, they enter their respective water quality vegetated swales in the forebay area. These swales meander and have a flatter slope to encourage contact time with the vegetation. Each of these swales then outlets into the Low Impact Design (LID) feature.

The water quality feature was sized using the Commercial LID spreadsheet for volumetric storage. The infiltration trench will be backfilled with clean gravel, to promote a longer duration of infiltration without the risk of vector issues.

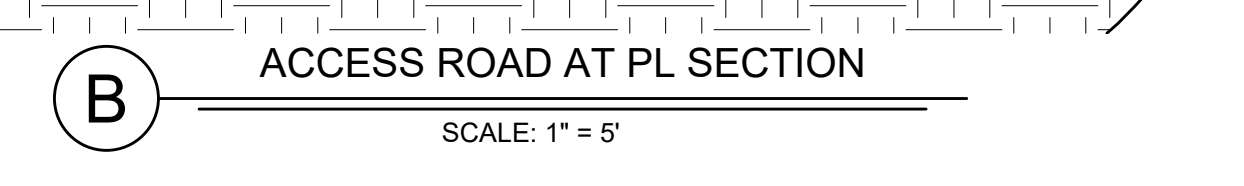
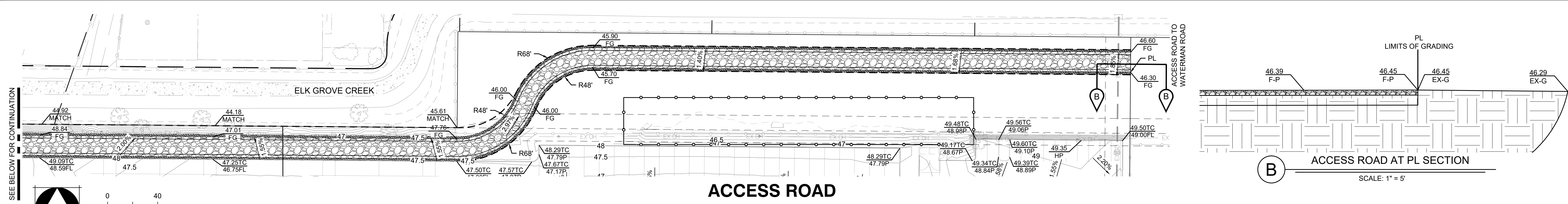
VI. Outfall Structure

The outfall structure for the basin will drain the design flows through a system of pipes, structures and a flap gate. The flap gate will prevent flows from the adjacent Elk Grove Creek from entering the private drainage basin during peak flows in the channel. The system can be accessed through a manhole at the midpoint between the basin and the channel.

VII. Weir

During larger storm events, the weir will be activated with flows moving in both directions. Flows will be able to leave the site and enter the private basin, depending on the hydraulic situation, over the top of the weir and interact with the flows in Elk Grove Creek. This weir is armored on both the public and private sides for this reason.

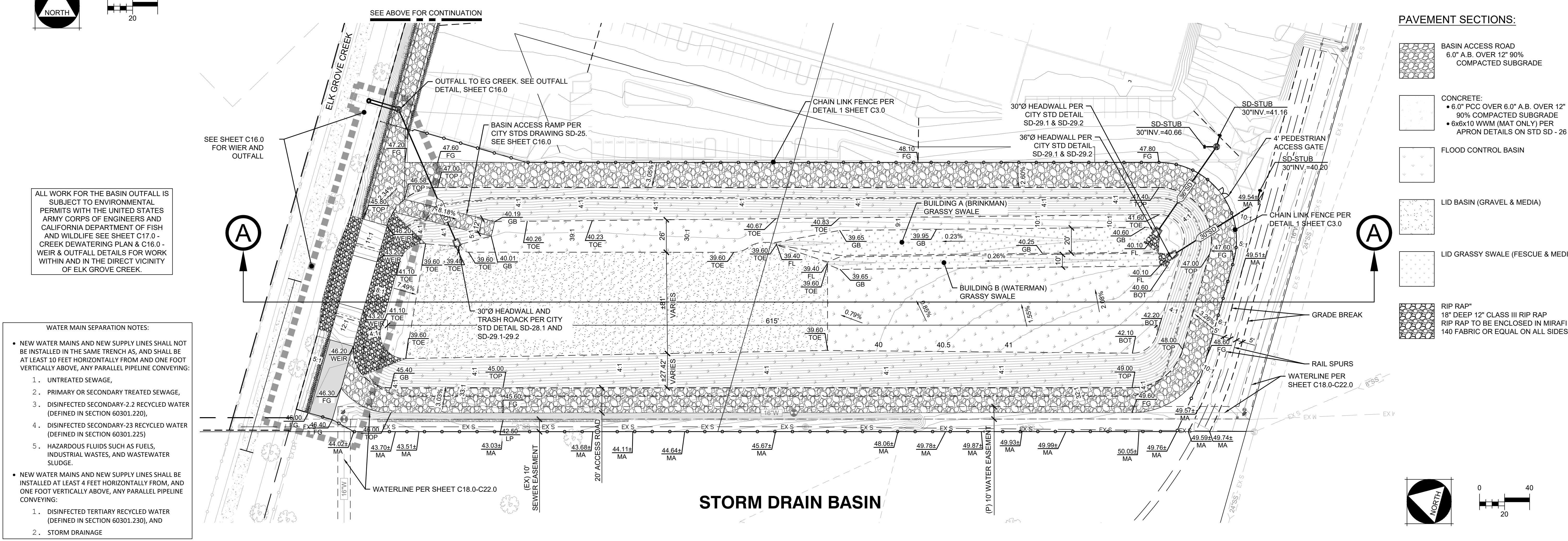
Attachment A
Project Drawings



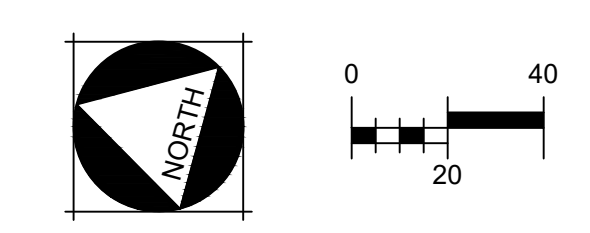
ACCESS ROAD

B ACCESS ROAD AT PL SECTION

SCALE: 1" = 5'



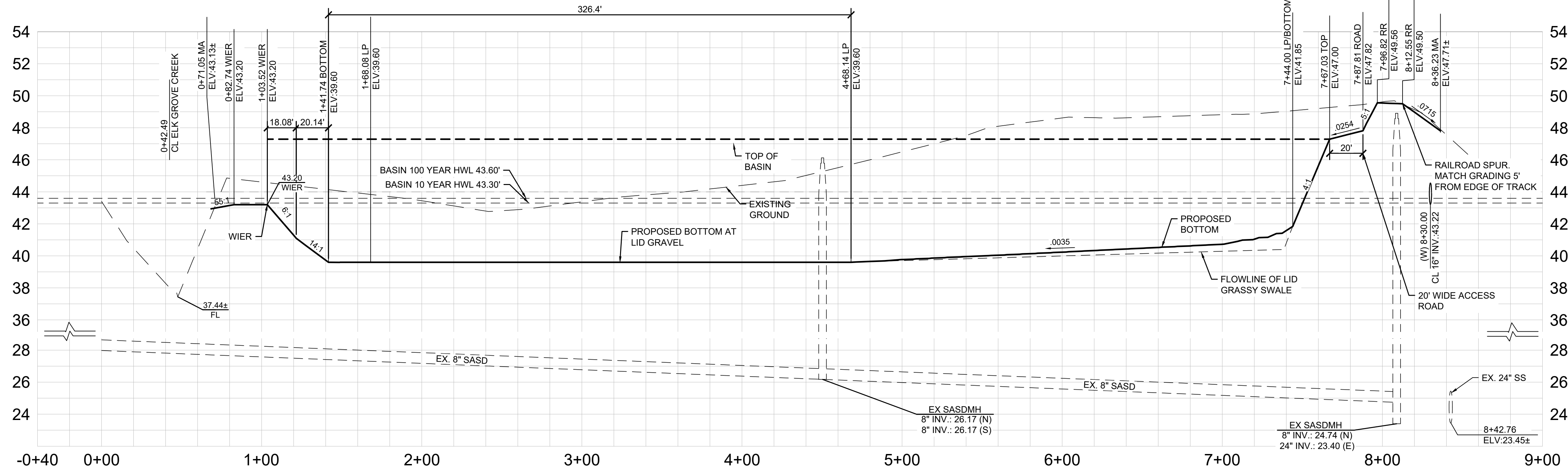
STORM DRAIN BASIN



- PAVEMENT SECTIONS:**
- BASIN ACCESS ROAD**
6.0" A.B. OVER 12" 90% COMPACTED SUBGRADE
 - CONCRETE:**
• 6.0" PCC OVER 6.0" A.B. OVER 12" 90% COMPACTED SUBGRADE
• 6x6x10 WWM (MAT ONLY) PER APRON DETAILS ON STD SD - 26
 - FLOOD CONTROL BASIN**
 - LID BASIN (GRAVEL & MEDIA)**
 - LID GRASSY SWALE (FESCUE & MEDIA)**
 - RIP RAP***
18" DEEP 12" CLASS III RIP RAP
RIP RAP TO BE ENCLOSED IN MIRAFI 140 FABRIC OR EQUAL ON ALL SIDES

ALL WORK FOR THE BASIN OUTFALL IS SUBJECT TO ENVIRONMENTAL PERMITS WITH THE UNITED STATES ARMY CORPS OF ENGINEERS AND CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE SEE SHEET C17.0 - CREEK DEWATERING PLAN & C16.0 - WEIR & OUTFALL DETAILS FOR WORK WITHIN AND IN THE DIRECT VICINITY OF ELK GROVE CREEK.

- WATER MAIN SEPARATION NOTES:**
- NEW WATER MAINS AND NEW SUPPLY LINES SHALL NOT BE INSTALLED IN THE SAME TRENCH AS, AND SHALL BE AT LEAST 10 FEET HORIZONTALLY FROM AND ONE FOOT VERTICALLY ABOVE, ANY PARALLEL PIPELINE CONVEYING:
 1. UNTREATED SEWAGE,
 2. PRIMARY OR SECONDARY TREATED SEWAGE,
 3. DISINFECTED SECONDARY-2.2 RECYCLED WATER (DEFINED IN SECTION 60301.220),
 4. DISINFECTED SECONDARY-23 RECYCLED WATER (DEFINED IN SECTION 60301.225)
 5. HAZARDOUS FLUIDS SUCH AS FUELS, INDUSTRIAL WASTES, AND WASTEWATER SLUDGE.
 - NEW WATER MAINS AND NEW SUPPLY LINES SHALL BE INSTALLED AT LEAST 4 FEET HORIZONTALLY FROM, AND ONE FOOT VERTICALLY ABOVE, ANY PARALLEL PIPELINE CONVEYING:
 1. DISINFECTED TERTIARY RECYCLED WATER (DEFINED IN SECTION 60301.230), AND
 2. STORM DRAINAGE



PROFILE SCALE
1" = 40' HORIZONTAL
1" = 4' VERTICAL



APPROVED:

NO.	DESCRIPTIONS	INIT.	DATE
A			

**IMPROVEMENT PLANS FOR:
BRINKMAN MASS GRADE, FLOOD IMPROVEMENTS & WATER LINE
BASIN AND ACCESS ROAD PLAN**

9195 BRINKMAN CT.
ELK GROVE, CA

811
Know what's below.
Call before you dig.
811 / 800-227-2600

JOB NO.: 20-002
DATE: 02/07/2024
SCALE: AS SHOWN
DR. BY: MT, RP
CK. BY: MS, SLS

SHEET NO.
C14.0
OF 25 SHEETS



APPROVED:

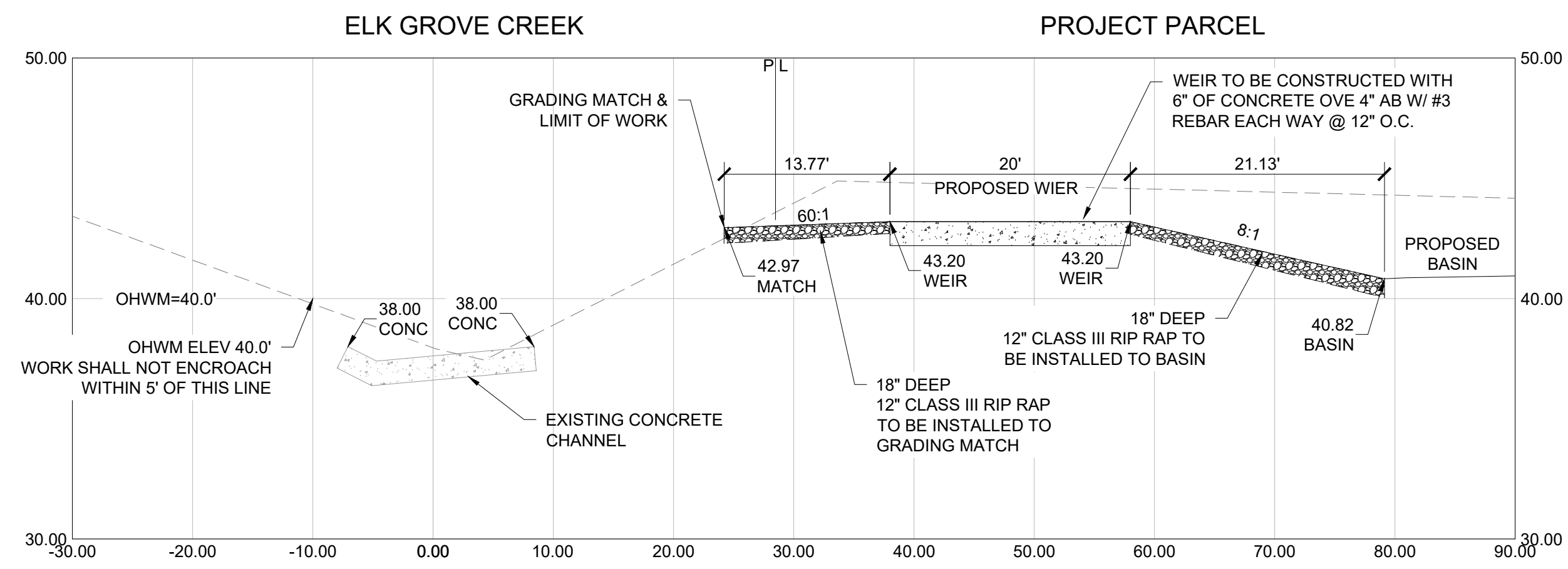
NO.	DESCRIPTIONS	INIT.	DATE
A			

IMPROVEMENT PLANS FOR:
BRINKMAN MASS GRADE, FLOOD IMPROVEMENTS & WATER LINE
WEIR & OUTFALL DETAILS
 ELK GROVE, CA
 9195 BRINKMAN CT.

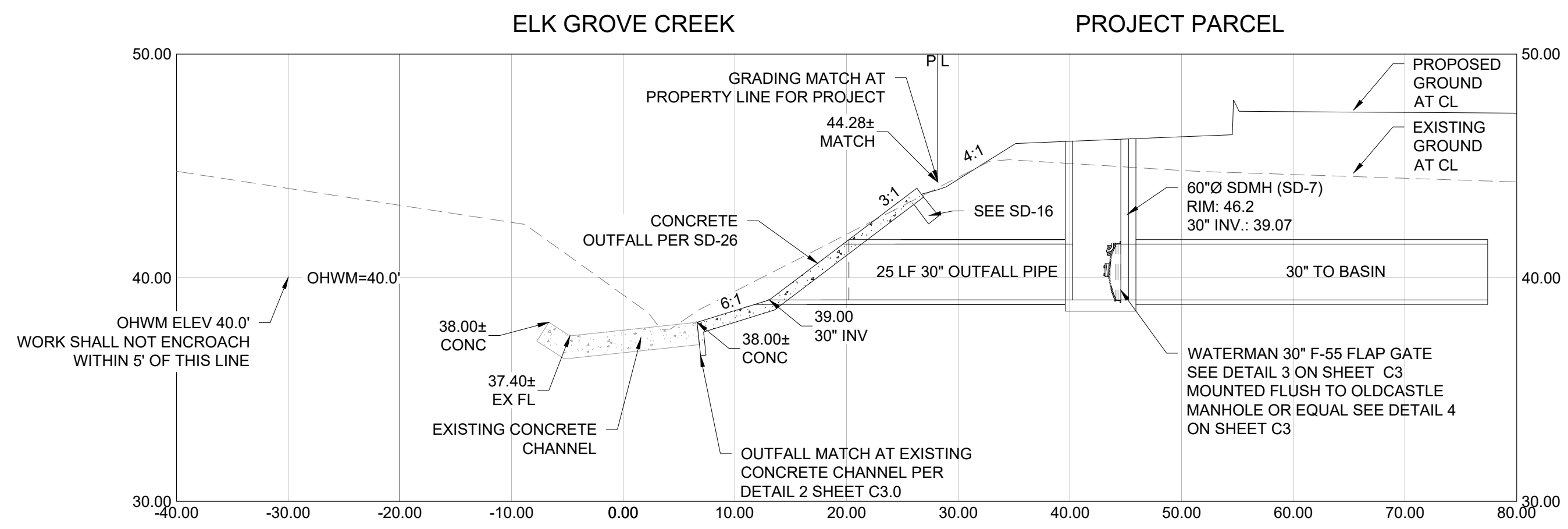
811
Know what's below.
Call before you dig.
811 / 800-227-2600

JOB NO.: 20-002
DATE: 02/07/2024
SCALE: AS SHOWN
DR. BY: MT, RP
CK. BY: MS, SLS

SHEET NO.
C16.0
OF 25 SHEETS

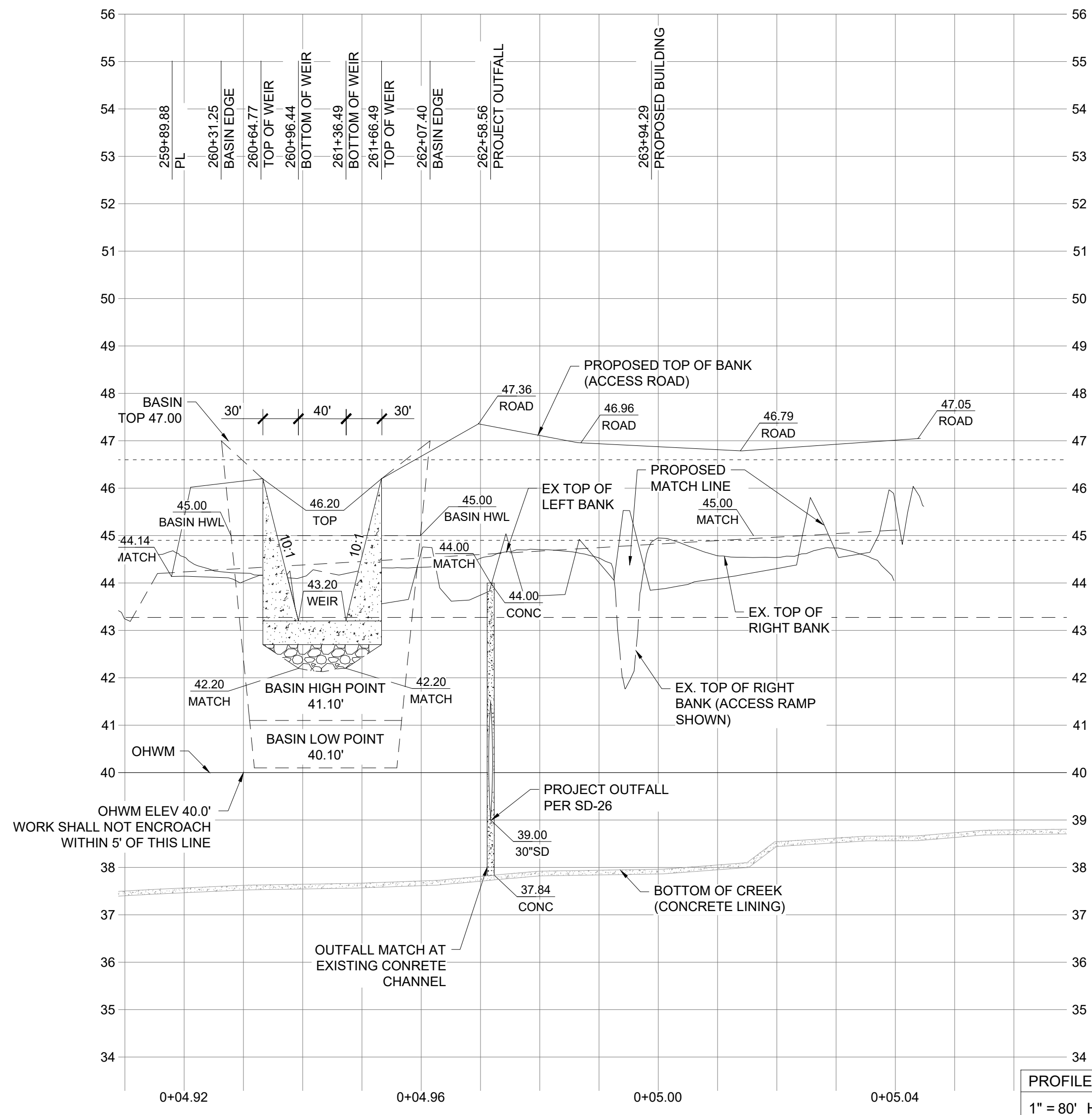


A WEIR SECTION



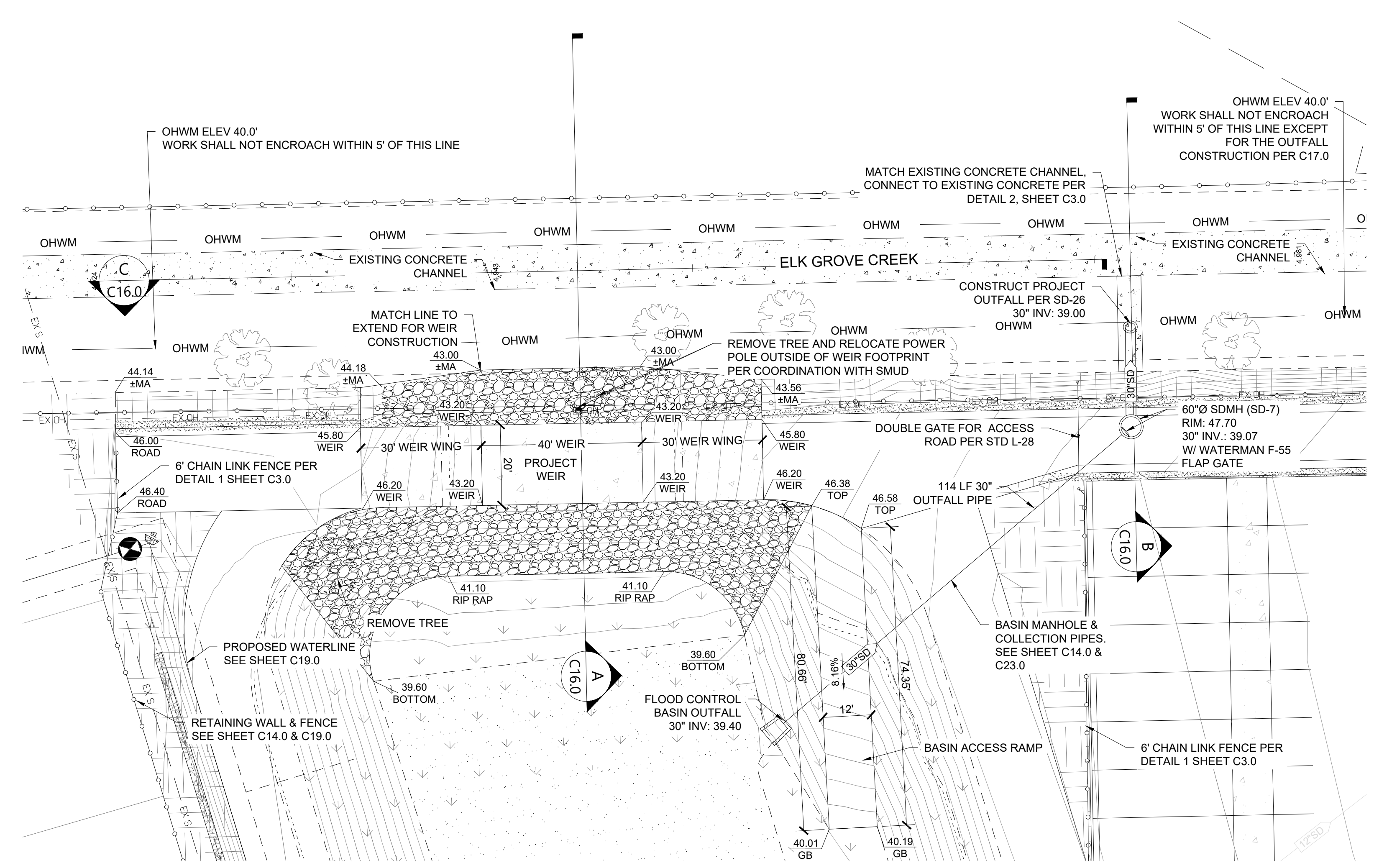
B OUTFALL SECTION

THE WORK PROPOSED FOR THE PROJECT OUTFALL POTENTIALLY IMPACTS WATERS OF THE UNITED STATES. APPROVAL FROM HELIX CONSULTANTS IS REQUIRED PRIOR TO CONDUCTING THE PROPOSED OUTFALL WORK



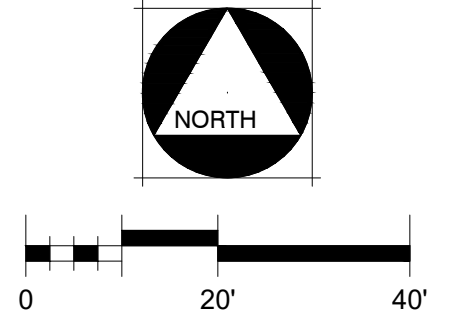
C ELK GROVE CREEK PROFILE

PROFILE SCALE
1" = 80' HORIZONTAL
1" = 2' VERTICAL



PROJECT OUTFALL, ELK GROVE CREEK, AND WEIR PLAN VIEW

- NOTES:
- SEE SHEET C6.0 & C7.0 FOR ADDITIONAL INFORMATION REGARDING PAVEMENT SECTIONS
 - PAVING FEATURES WITHIN THIS DESIGN AREA ARE NOT SHOWN FOR CLARITY AND CONTEXT OF THE BACKGROUND AERIAL. SEE SHEET C6.0 & C7.0 FOR REQUIRED PAVING WITHIN THE AREAS SHOWN ON THIS SHEET
 - SEE SHEET C17.0 FOR DEWATERING PLAN REGARDING ALL WORK IN ELK GROVE CREEK.





APPROVED:

NO.	DESCRIPTIONS	INIT.	BY	DATE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

IMPROVEMENT PLANS FOR:
BRINKMAN MASS GRADE, FLOOD IMPROVEMENTS & WATER LINE

STORM DRAIN PROFILES

ELK GROVE, CA

9195 BRINKMAN CT.



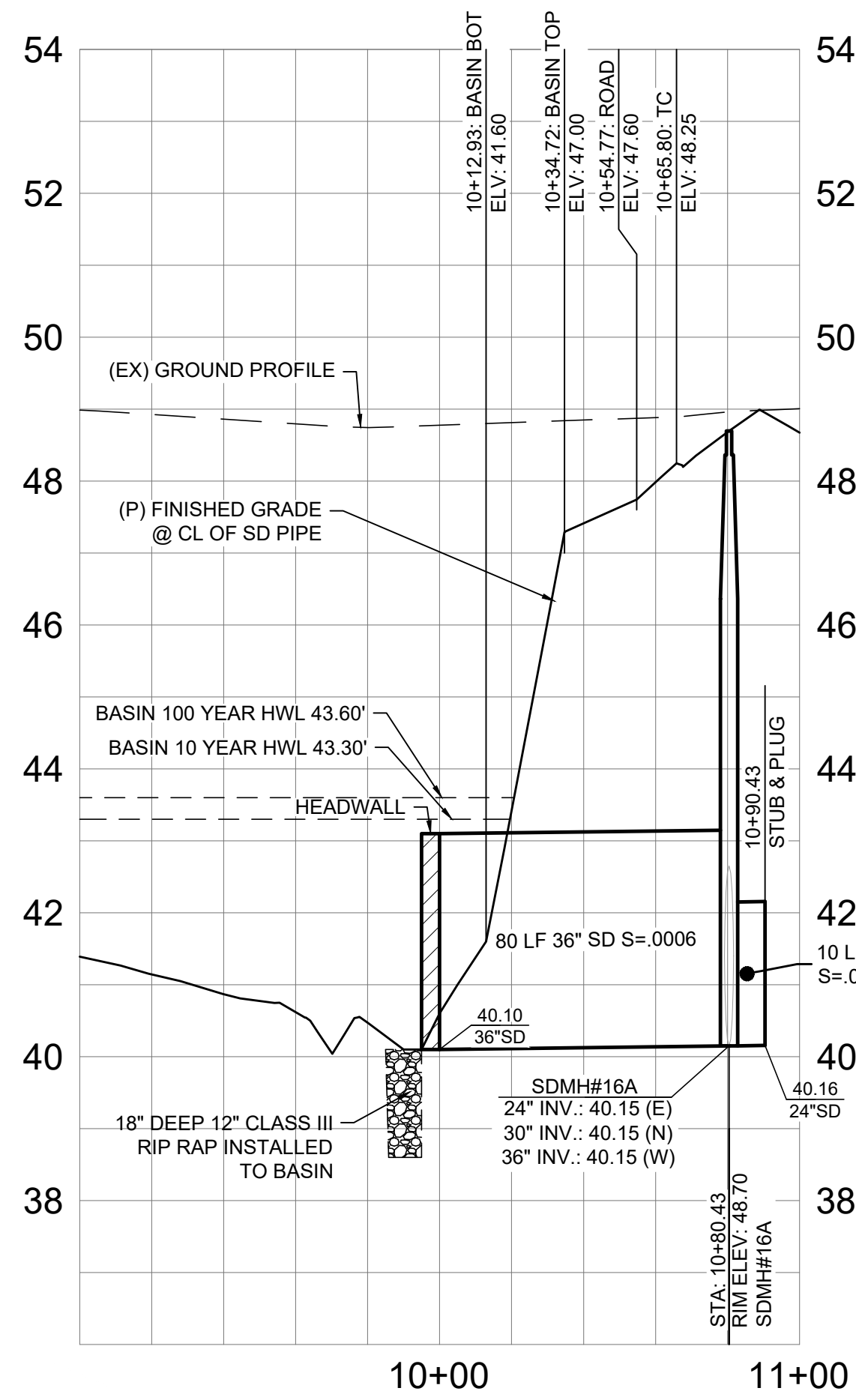
Know what's below.
Call before you dig.
811 / 800-227-2600

JOB NO.: 20-002
DATE: 02/07/2024
SCALE: AS SHOWN
DR. BY: MT, RP
CK. BY: MS, SLS

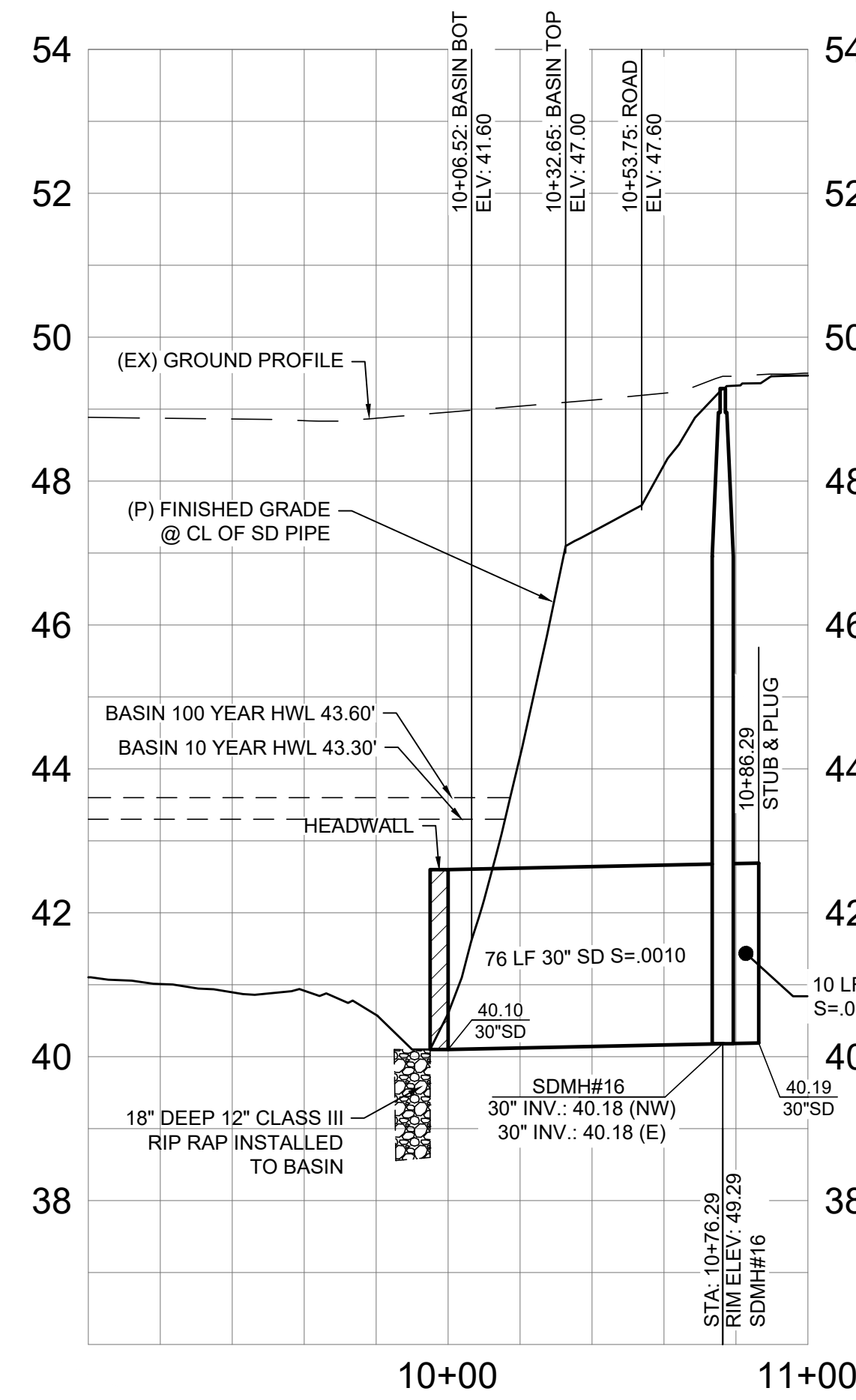
SHEET NO.

C23.0

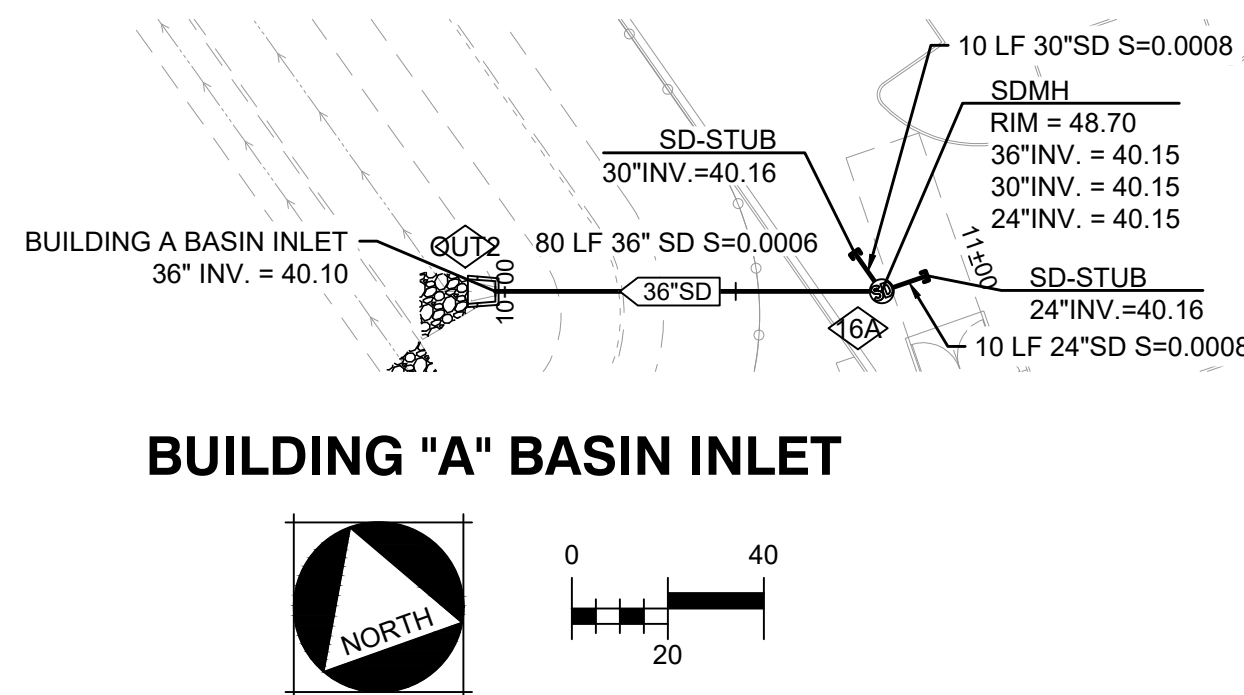
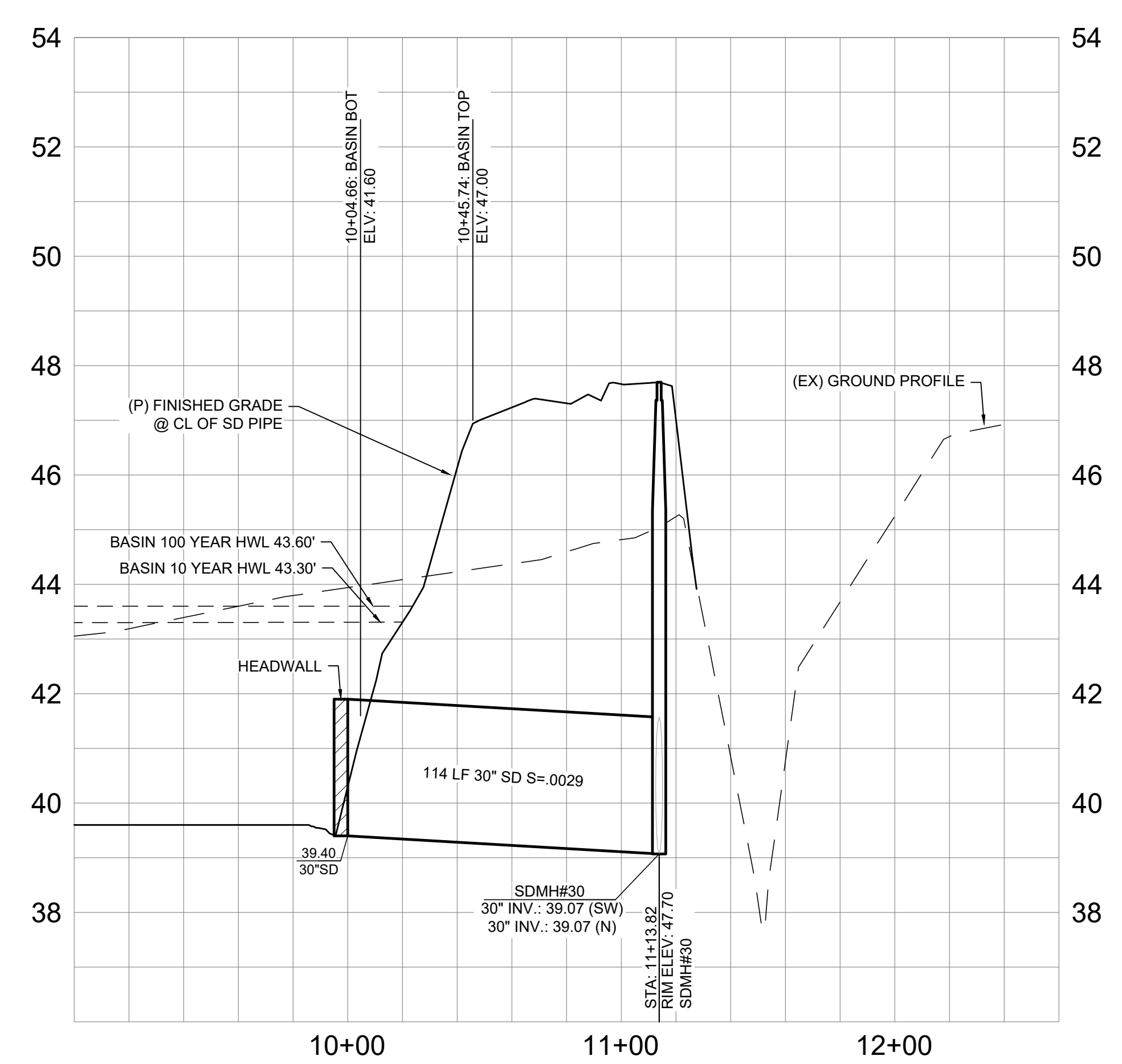
OF 25 SHEETS



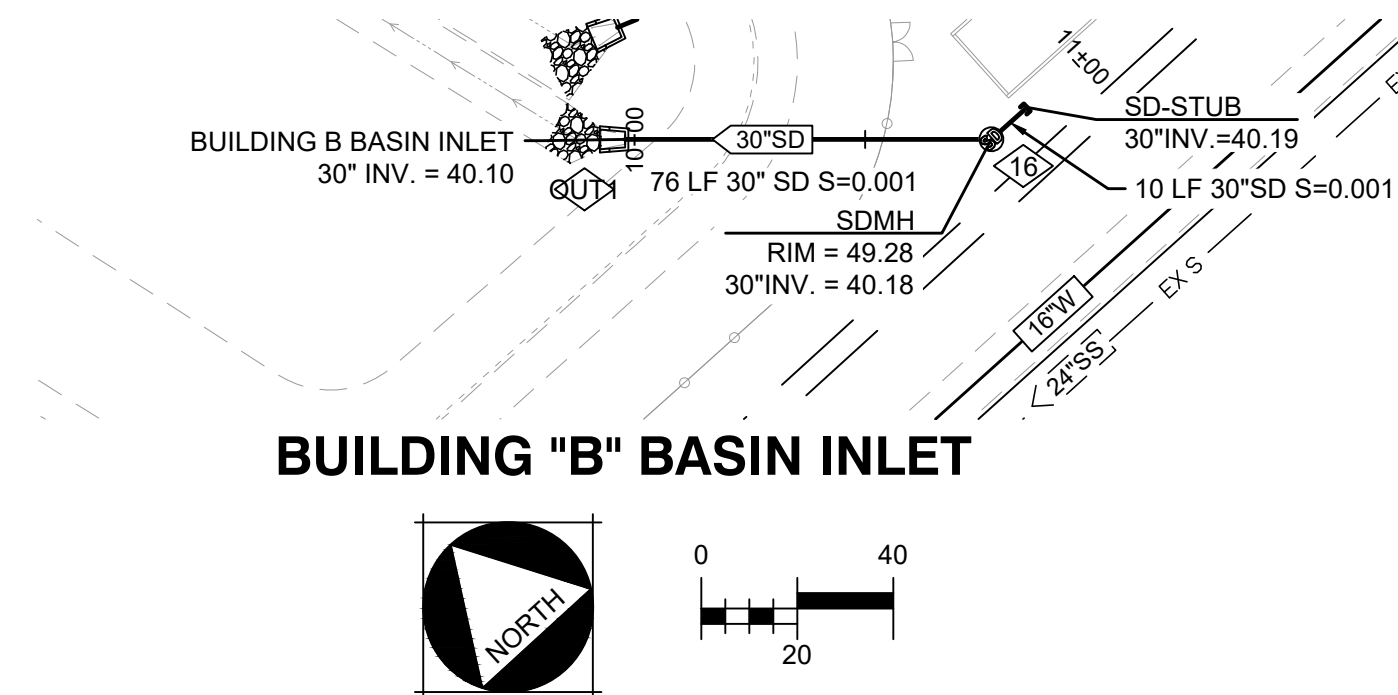
PROFILE SCALE
1" = 40' HORIZONTAL
1" = 2' VERTICAL



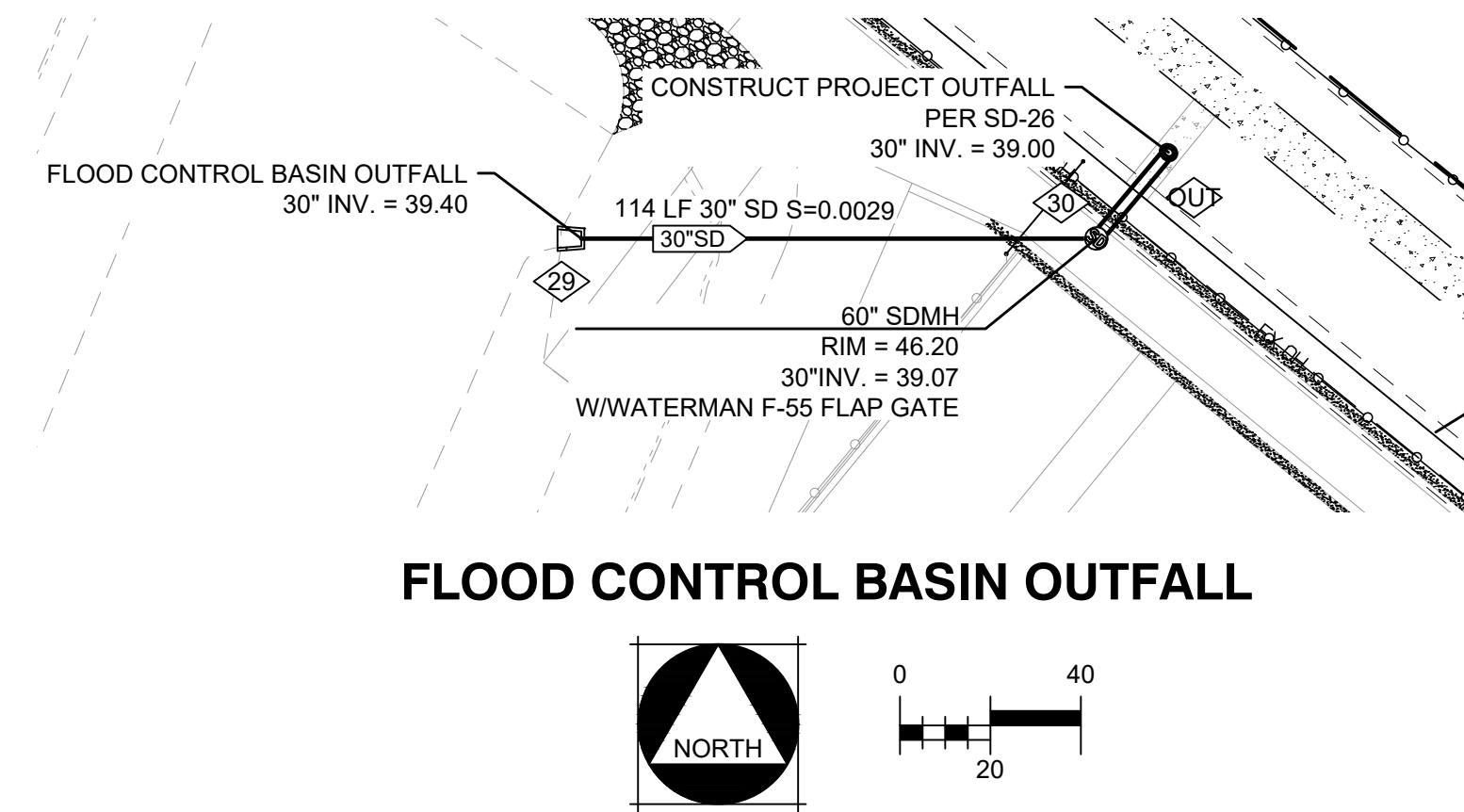
PROFILE SCALE
1" = 40' HORIZONTAL
1" = 2' VERTICAL



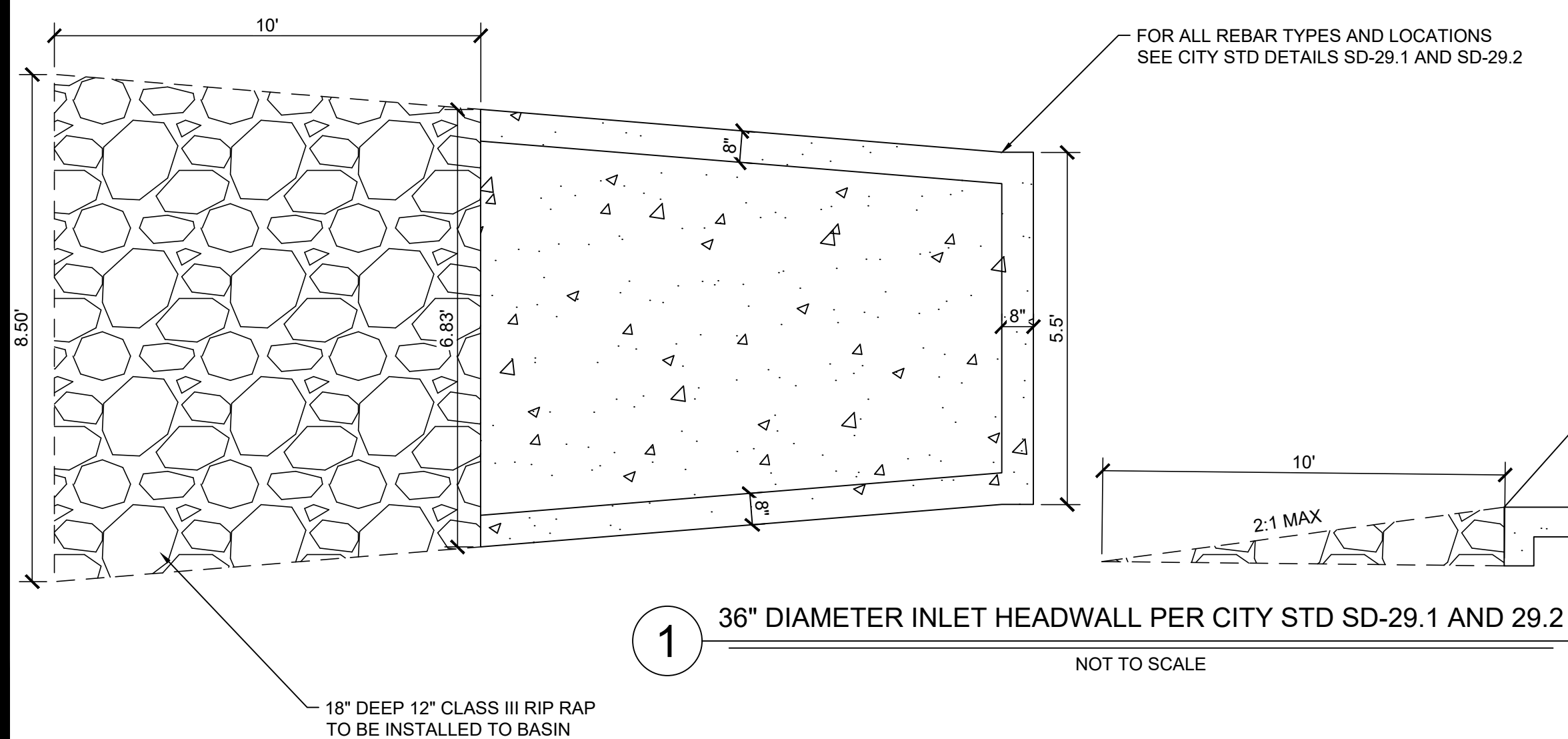
BUILDING "A" BASIN INLET



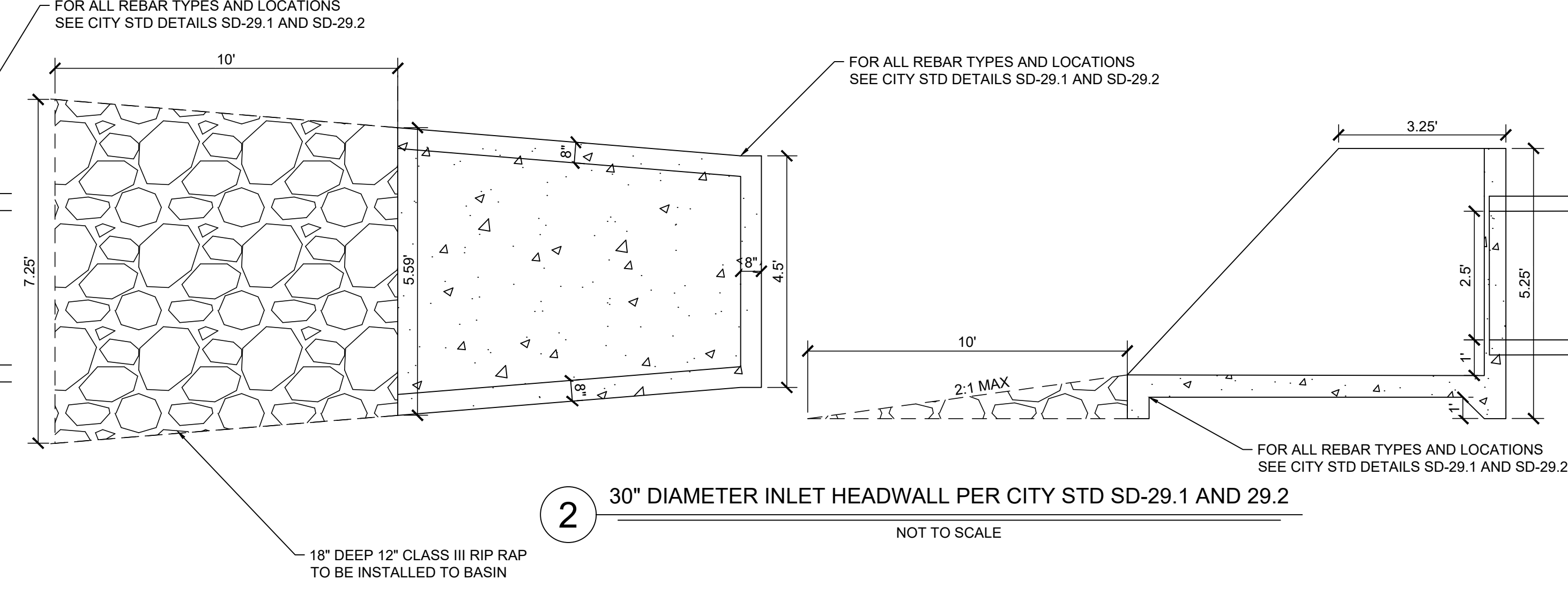
BUILDING "B" BASIN INLET



FLOOD CONTROL BASIN OUTFALL



1



2

APPENDIX C

NOISE ADDENDUM



January 10, 2025

Logan James | Senior Development Project Manager
Buzz Oates Construction, Inc.
loganjames@buzzoates.com
555 Capitol Mall, Suite 900
Sacramento, CA 95814
loganjames@buzzoates.com

Subject: Noise Addendum for the Waterman Brinkman Noise Analysis – City of Elk Grove, California

Dear Mr. James:

At your request, Saxelby Acoustics has reviewed and prepared a noise addendum as a supplement to the previous noise study prepared for the project.¹ This addendum also considers cumulative noise exposure expected to occur with the Vulcan Materials aggregate production and recycling project. Noise level generation of this facility are combined with the proposed project to determine cumulative noise levels at receptors around the project site. Noise generation from the Vulcan project was obtained from the noise report prepared for that project.²

This addendum was specifically prepared to address changes to the layout of Building B which flipped the building so that the loading docks now face towards the east instead of the west. The new layout of Building B is shown in **Figure 1**. Saxelby Acoustics updated the noise model for the new layout following the methods previously outlined in the noise study. The results of this analysis are shown on **Figures 2-4**.

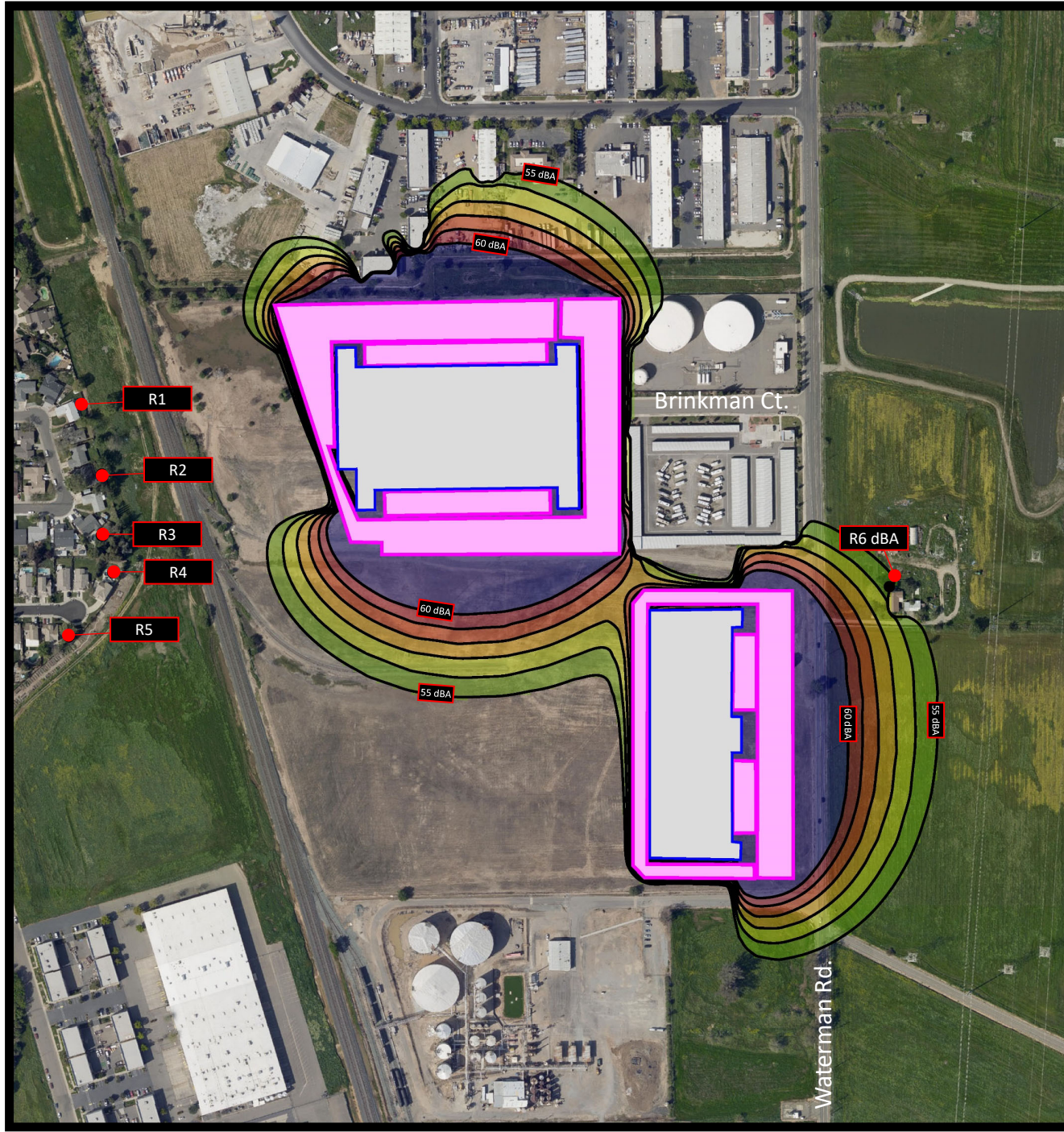
¹ *Environmental Noise Assessment, Waterman Brinkman Logistics Center*. Saxelby Acoustics LLC. January 20, 2021.

² *Environmental Noise & Vibration Assessment, Grantline Construction Aggregate Production & Recycling Facility*. Bollard Acoustical Consultants, Inc. September 11, 2022.

Waterman Brinkman Logistics Center

City of Elk Grove, California

Figure 2
Project Daytime Noise Contours
(dBA L_{eq})



Noise Level, dB(A)

- 55 < [Green] ≤ 56
- 56 < [Yellow] ≤ 57
- 57 < [Orange] ≤ 58
- 58 < [Red] ≤ 59
- 59 < [Dark Red] ≤ 60
- 60 < [Dark Blue]

- [Blue outline] ≤ 56
- [Pink outline] ≤ 57
- [Blue outline] ≤ 58
- [Pink outline] ≤ 59
- [Blue outline] ≤ 60

Legend

- [Blue outline] Project Site
- [Pink outline] Area source
- [Blue outline] Main building

Scale 1:415



Waterman Brinkman Logistics Center

City of Elk Grove, California

Figure 3

Project Nighttime Noise Contours
(dBA L_{eq})

Noise Level, dB(A)

45 <	<= 46
46 <	<= 47
47 <	<= 48
48 <	<= 49
49 <	<= 50
50 <	

Legend

- Project Site
- Area source
- Main building

Scale 1:485



Waterman Brinkman Logistics Center

City of Elk Grove, California

Figure 4

Project Day/Night Average Noise Contours (dBA L_{dn})

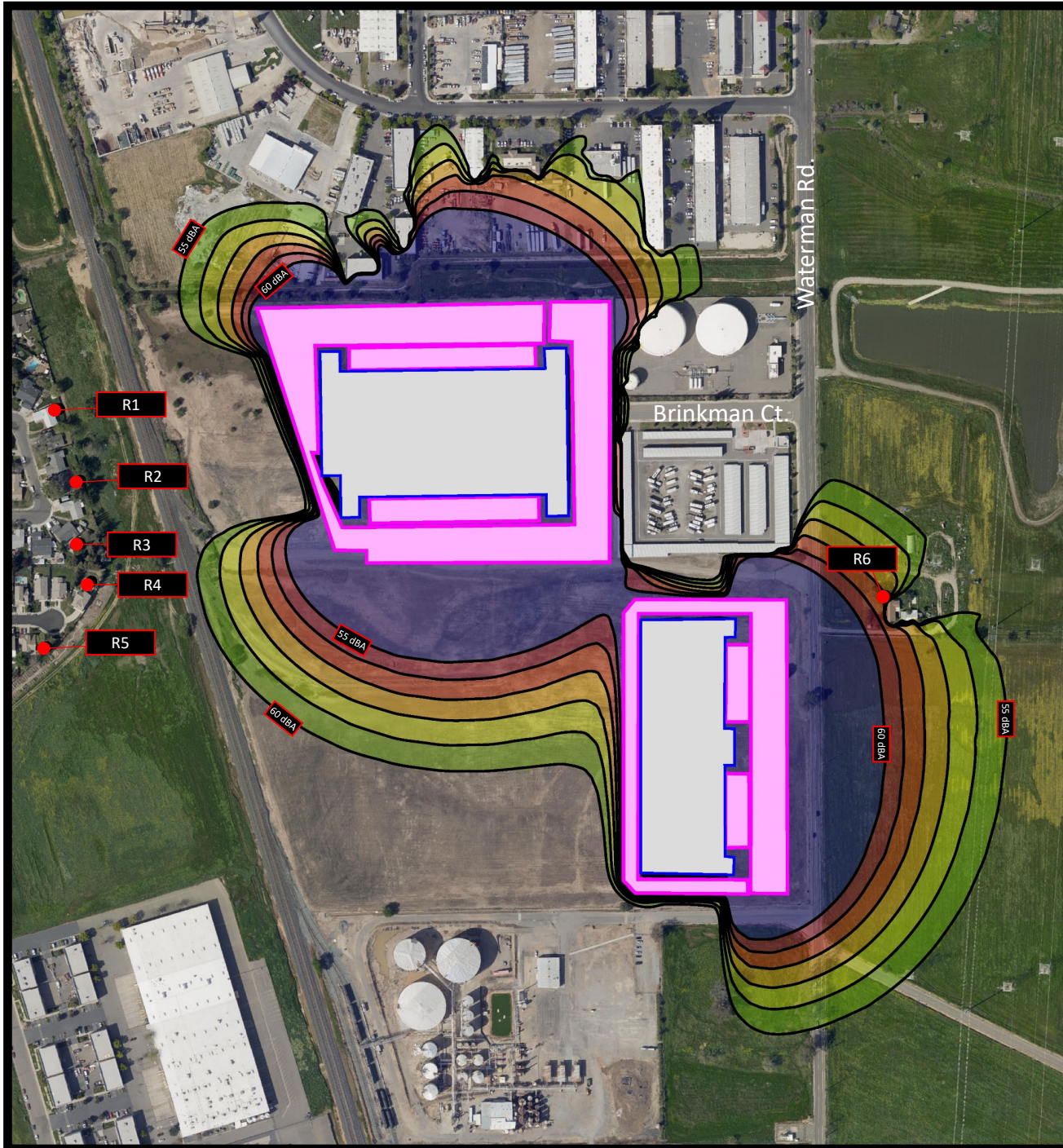
Noise Level, dB(A)

55 <	<= 56
56 <	<= 57
57 <	<= 58
58 <	<= 59
59 <	<= 60
60 <	

Legend

- Project Site
- Area source
- Main building

Scale 1:415



APPLICABLE NOISE STANDARDS

The following **Table 1** standards from the City of Elk Grove General Plan would be applicable for project-generated noise at the nearest noise-sensitive receptors.

TABLE 1: NOISE LEVEL PERFORMANCE STANDARDS FOR NEW PROJECTS AFFECTED BY OR INCLUDING NON-TRANSPORTATION NOISE SOURCES *

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Typical Noise Sources – Hourly L_{eq} , dB	55	45
Noise Sources Which Are Tonal, Impulsive, Repetitive, or Consist Primarily of Speech or Music – Hourly L_{eq} , dB	50	40

* Applies to noise-sensitive land uses only

- a. These standards will apply generally to noise sources that are not tonal, impulsive, or repetitive in nature. Typical noise sources in this category would include HVAC systems, cooling towers, fans, and blowers.
- b. These standards apply to noises which are tonal in nature, impulsive, repetitive, or which consist primarily of speech or music (e.g., humming sounds, outdoor speaker systems). Typical noise sources in this category include: pile drivers, drive-through speaker boxes, punch presses, steam valves, and transformer stations. HVAC/pool equipment are exempt from these standards.
- c. These noise levels do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwelling). HVAC/pool equipment are exempt from these standards
- d. The City may impose noise level standards which are more or less restrictive based upon determination of existing low or high ambient noise levels.

Based upon the **Table 1** standards, the default daytime noise limit would be 55 dBA L_{eq} and the nighttime noise limit would be 45 dBA L_{eq} . However, based on footnote d, the City could apply standards that are more or less restrictive based upon the determination of existing low or high ambient noise levels.

Based upon **Table 2** from the previous noise study (shown below), existing ambient noise levels at the receptors to the east were found to be 73 dBA L_{eq} (day) and 68 dBA L_{eq} (night). Noise measurement sites are shown on **Figure 5**.

It should be noted that these noise level values were collected within approximately 25 feet of the Waterman Road centerline while the nearest outdoor activity area for the home to the east is set back to approximately 180 feet from centerline. Adjusting for distance, the noise levels at the existing house would be 60 dBA L_{eq} during the daytime, 55 dBA L_{eq} during the nighttime, and 62 dBA L_{dn} as shown below in **Table 2**. Therefore, it would be warranted to set the City’s noise limits to the existing values of 60 dBA L_{eq} during daytime hours and 55 dBA L_{eq} during nighttime hours.

Additionally, receptors to the west were found to experience existing noise levels of 60 dBA L_{eq} during daytime hours and 62 dBA L_{eq} during nighttime hours. Therefore, increasing the applicable noise standard to 60 dBA during daytime and nights hours is warranted. It should be noted that the Vulcan noise study also concluded that a daytime noise limit of 60 dBA L_{eq} was appropriate. The Vulcan noise study did not include nighttime noise measurements, so a conservative limit of 50 dBA L_{eq} was applied to nighttime noise.

TABLE 2: SUMMARY OF EXISTING BACKGROUND NOISE MEASUREMENT DATA

Site	Date	Average Measured Hourly Noise Levels, dBA						
		L_{dn}	Daytime (7:00 am - 10:00 pm)			Nighttime (10:00 pm – 7:00 am)		
			L_{eq}	L_{50}	L_{max}	L_{eq}	L_{50}	L_{max}
LT-1 (Receptors to East)	11/09/20 – 11/10/20	75	73	66	88	68	52	85
(Receptor to East, Outdoor Area) *		62.14	60	53	75	55	39	72
LT-2 (Receptor to West)	11/09/20 – 11/10/20	68	60	44	77	62	49	76

*Distance adjusted noise levels from LT-1 data.
Source: Saxelby Acoustics – 2020

The project is also subject to the City’s ambient increase criteria, as outlined by the FICON standards shown in Table 7 of the noise study and contained in General Plan Policy N-2-2. For receptors exposed to noise levels between 60 to 65 dBA L_{dn} the City’s threshold is +3 dBA. For noise exposure exceeding 65 dBA L_{dn} , the threshold is 1.5 dBA.



Waterman Brinkman Logistics Center

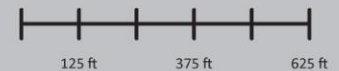
City of Elk Grove, California

Figure 5

Noise Measurement Sites

Legend

 Noise Measurement - Long Term



Projection: State Plane (California Zone 2) / NAD83 / meters
Rev. Date: 11/09/2020



NOISE EXPOSURE SUMMARY

Table 3 shows the existing and existing plus project and cumulative noise exposure for the sensitive receptors located around the project site. **Table 4** shows the ambient noise level increase due to the project and cumulative conditions.

TABLE 3: PREDICTED NOISE LEVELS

Receiver	Day dB(A) L_{eq}		Day Ambient Adjusted Standard	Meets Standard?	Night dB(A) L_{eq}		Night Ambient Adjusted Standard	Meets Standard?
	Project	Cumulative			Project	Cumulative		
1	43.1	52.1	60.0	Yes	37.8	45.2	60.0	Yes
2	43.5	52.3	60.0	Yes	38.3	46.0	60.0	Yes
3	47.5	53.4	60.0	Yes	42.4	48.2	60.0	Yes
4	48.7	52.8	60.0	Yes	43.6	48.0	60.0	Yes
5	47.4	51.7	60.0	Yes	42.4	46.9	60.0	Yes
6	55.5	57.8	60.0	Yes	50.5	52.6	55.0	Yes

Based upon the **Table 3** noise levels, the project would meet the standards of the City of Elk Grove under both project-only and cumulative noise conditions.

TABLE 4: PREDICTED NOISE LEVEL INCREASES

Receiver	Existing Ambient, dBA L _{dn}	Existing Plus Project, dBA L _{dn}	Change	Increase Standard	Meets Standard?	Cumulative Plus Project, dBA L _{dn}	Change	Standard	Meets Standard?
1	68.4	68.4	0.0	+1.5	Yes	68.5	0.1	+1.5	Yes
2	68.4	68.4	0.0	+1.5	Yes	68.6	0.2	+1.5	Yes
3	68.4	68.5	0.1	+1.5	Yes	68.6	0.2	+1.5	Yes
4	68.4	68.5	0.1	+1.5	Yes	68.6	0.2	+1.5	Yes
5	68.4	68.5	0.1	+1.5	Yes	68.6	0.2	+1.5	Yes
6	62.1	63.6	1.4	+3.0	Yes	64.3	2.1	+3.0	Yes

Based upon the **Table 4** noise levels, the project would meet the increase standards of the City of Elk Grove under both project-only and cumulative noise conditions.

CONCLUSIONS

Based upon the **Table 3** and **Table 4** noise levels, the predicted project and project plus cumulative conditions are predicted to meet the standards of the City of Elk Grove and no additional noise control measures are warranted.

I hope this information is helpful, please don't hesitate to contact us with any additional comments.

Saxelby Acoustics LLC




Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering

APPENDIX D

VMT ANALYSIS

Memorandum

Date: July 15, 2024
To: Rod Stinson, RANEY Planning & Management, Inc.
From: David B. Robinson, Fehr & Peers
Subject: **Elk Grove Waterman Brinkman Logistics Center (PLNG20-016) – VMT Analysis**

RS21-4113

Fehr & Peers completed a vehicle miles of travel (VMT) evaluation of the Waterman Brinkman Logistics Center (PLNG20-016) project. The purpose of the VMT analysis is to determine if the proposed project complies with City of Elk Grove General Plan Policy (Policy MOB-1-1) adopted to reduce VMT and achieve State-mandated reductions in VMT. This memorandum outlines SB 743, the proposed project, the analysis methodology, the evaluation criteria, presents the analysis results, and describes the intent of SB 743 relative to heavy vehicles.

SB 743

SB 743 (Stats. 2013, ch. 386) resulted in several statewide CEQA changes. It required the Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the metrics beyond TPAs. OPR selected VMT as the preferred transportation impact metric and applied their discretion to require its use statewide. This legislation also established that aesthetic and parking effects of a residential, mixed-use residential, or employment center projects on an infill site within a TPA are not significant impacts on the environment. The revised CEQA Guidelines that implement this legislation became effective on December 28, 2018, and state that vehicle level of service (LOS) and similar measures related to delay shall not be used as the sole basis for determining the significance of transportation impacts.

Proposed Project

The Project would include construction of two one-story industrial/flex buildings, totaling about 433,397. In addition to the warehouses, an 8.92 acre-foot flood control detention basin would be developed. The project has a General Plan land use designation of heavy industrial. Approval of the Project would require a Major Design Review and a Tree Removal Permit.

VMT Analysis Methodology

The estimation of the Project's VMT performance follows the methods documented in *EGSIM20 – Model Development Report and VMT Methodology* (October 5, 2022).

VMT Performance Metrics

The EGSIM20 Travel Demand Model is a tool for implementing the General Plan (i.e., like General Plan policy and actions). Consistent with CEQA Guidelines, § 15064.7, the City selected VMT per service population as the preferred performance metric, for implementing its VMT policy. Of the performance metrics considered, VMT per service population was the most intuitive to the decision makers and supported implementation of the General Plan by incentivizing development in the City's core and not in sensitive resource areas that the community values. A key emphasis of the General Plan was to plan and develop a better job-to-housing balance so residents can work where they live, and to support more mixed-use development to reduce the need to travel by car for goods and services. The VMT per service population metric is useful since it captures these trip reduction benefits and accounts for travel from the full range of users and not just residents or just workers. In addition, the City of Elk Grove uses VMT performance targets by General Plan land use category and VMT limits for the City and study areas, which is an additional step to ensure consistency with the General Plan.

VMT Efficiency Components - Definitions

Trips

Trip is defined as a travel between two points using a certain mode of travel. In an activity-based model, individuals make multiple trips per day. The model tracks each trip, including their characteristics (e.g., trip length, purpose, time, location etc.). The model includes four major types of trips that are included in various VMT calculations:

- Trips by SACOG residents to destinations within the SACOG region. These are known as internal-internal, or II trips. These trips are modeled by the DAYSIM submodel.
- Trips by SACOG residents to destinations outside the SACOG region, known as internal-external, or IX trips. These trips are modeled by the IX-XI submodel.
- Trips by non-SACOG residents to destinations in the SACOG region, known as external-internal, or XI trips. These trips are modeled by the IX-XI submodel.
- Trips that do not stop within the SACOG region are known as external-external (XX) or through trips. These are generally not included in VMT efficiency calculations but are typically included in VMT estimates used for emissions analysis. They offer the full picture of VMT within a certain region.

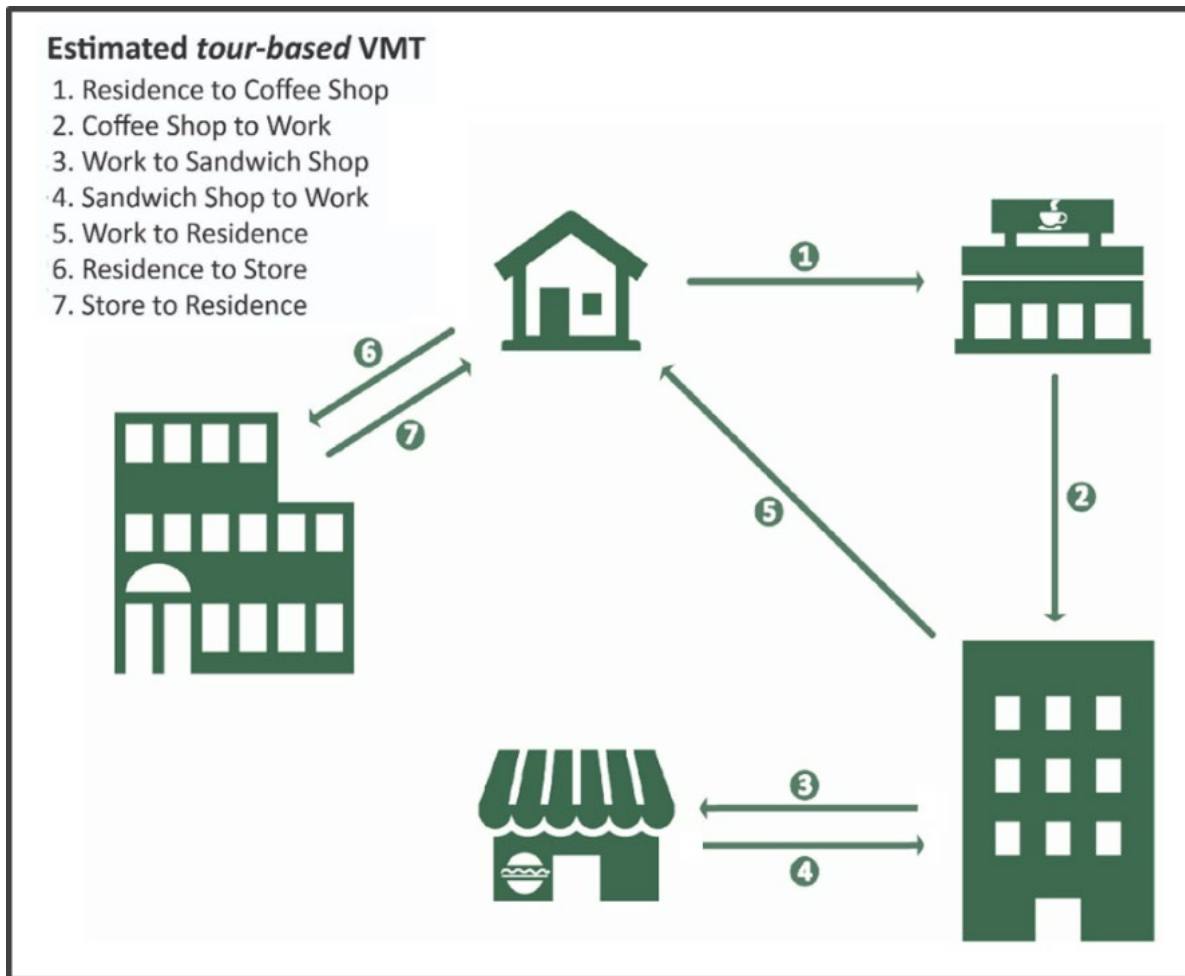
Tours

A tour is defined as a chain of trips that, typically occurring in sequence, start and end at a specific location. By definition, tours in activity-based models refer to chain of trips that begin and end at a home location. Any trip-chaining that does not begin or end at home location are called subtours.

Travel Diary

Activity-based models create a travel diary for each individual in the model area. **Figure 2** shows a travel diary of a typical day for a household member within the SACOG region. Each leg of the arrow indicates an individual trip. This example includes 7 trips and 2 tours between home, coffee shop, work, and store location. Work location can be Office/Industrial/Retail/Public facilities etc. **Trips 1-2-5** is a home-based tour. **Trip 3-4** is a work-based subtour.

Figure 2: EGSIM20 Example Travel Diary



Full Accounting

Full Accounting of VMT accounts for vehicle travel that occurs outside of the model area. This is done in the EGSIM20 by using IX-XI trips and average trip distance outside SACOG region. The average trip length outside of the SACOG region was calculated using Replica (Spring 2019) mobility data.

Household Generated VMT

Household Generated VMT applies to all residential land uses. This includes All VMT from vehicle tours (both work/commute vehicle tours and non-work vehicle tours) that start and end at residential units.

Tours 1-2-5 and 6-7 in **Figure 2** are examples of such tours. Trips made by a household resident that do not begin or end at home (e.g., midday travel from a worksite for lunch or personal business) are also included in the household generated VMT estimates. **Subtour 3-4** from **Figure 2** is an example of non-home-based tour.

Employment Center Generated Work Tour VMT

Employment Center Generated Work Tour VMT applies to office/business professional and industrial employment land uses. This VMT includes all work/commute vehicle tours that start and end at the worksite (including intermediate stops). **Tour 1-2-5** in **Figure 2** is an example of a commute tour. Work-based subtours tours that start and end at employment locations are also included. **Tour 3-4** in **Figure 2** is an example of work based sub-tour.

Retail/Public facilities Generated VMT

Retail/Public facilities Generated VMT applies to retail or public facilities projects. This VMT includes all work/commute vehicle tours that start and end at the retail/public facility site (including intermediate stops). **Tour 1-2-5** in **Figure 2** is an example of a commute tour. Work based subtours tours that start and end at employment location are also included. **Tour 3-4** in **Figure 2** is an example of work based sub-tour. VMT associated with retail/public facility uses that are not commute tours are also included. **Tour 6-7** in **Figure 2** is an example of "Other" tours. Other tours are only included for the following trip purposes only:

- Shopping
- Meal
- Personal Business/ Medical

VMT Efficiency by Land Use Category

VMT Efficiency by Land Use Category is the ratio of total VMT for each parcel containing a specific land use designation and total service population for that parcel. For example, sum all the VMT from parcels designated as "Low density household" within City of Elk Grove and divide it by the total service population within the City for the same parcels to get VMT per service population for the Low-Density Household category.

VMT Efficiency Metric Calculation Methodology

Internal-Internal (II) VMT for EGSIM20 is calculated by using the trip and tour diaries created through the activity generation portion of the model (DaySim) and added to IX-XI VMT, calculated using additional processes outside of DaySIM. The main steps in calculating the VMT efficiency metrics are discussed below.

Run Scripts

When the EGSIM20 run completes, it produces the *_trips.tsv* file, which is a table of all internal-internal trips. However, because the trip distance in the original table is estimated based on the congested speed prior to the last global iteration, the user must run a Cube Voyage script¹, to estimate the distance based on the final iteration network congestion. The output of this supplementary Cube script is a CSV file, "*_trip_1_1.csv*," which has the same table as *_trips.tsv* but with the following attributes added to each trip:

- *timeau* – Updated travel time by auto
- *distau* – Updated trip distance by auto
- *distcong* – Congested distance

After running the first script, another Cube Voyager script¹ is run to compute VMT and other variables for both IX-XI and commercial trips. The following files are the output of the second script:

- *ixxi_taz.dbf* – This includes trips and VMT on Gateways for each TAZ.
- *cveh_taz.dbf* – This includes commercial vehicle trips for each TAZ.

Internal-Internal VMT

Using the *trips_1_1.csv* file, each vehicle trip's VMT is calculated using the following formulas. Factors are applied to the trip distance based on trip MODE.

- If MODE = 3 (DA), $VMT = distau$
- If MODE = 4 (HOV2), $VMT = distau * 0.5$
- If MODE = 5 (HOV3+), $VMT = distau * 0.3$

Where,

distau = updated trip distance by auto

DA = Drive Alone

HOV2 = High Occupancy Vehicle or Shared Drive 2

HOV3+ = High Occupancy Vehicle or Shared Drive 3 or more

¹ SACOG, VMT Computation Procedures – DRAFT, https://www.sacog.org/sites/main/files/file-attachments/draft_sacsim_vmt_calculation_procedures_0.pdf?1601488966

IX-XI VMT by TAZ

SACOG methodology for calculating VMT outside the region² were followed for this process. The file Outside_sacog_vmt_estimation_steps_0_new_method.xlsx excel tool created by SACOG³ was modified to incorporate new TAZ, land use, and external worker data. The output of this tool includes the following:

- Total IX-XI VMT by TAZ for external household generated VMT. This is completed by multiplying all external trips for each TAZ with the average estimated trip distance outside the region, which was estimated using Replica (Spring 2019) mobility data.
- Household generated IX-XI VMT or External Travel by residents for each TAZ is calculated using the following formula:

$$IXXI_{VMT_{RES}} = (IX_{VMT_{I}} + XI_{VMT_{I}}) * \left(\frac{HH}{(1 + HH + 1.1 * (EMPTOT - FOOD - RET - 0.25 * SVC))} \right)$$

Where:

IXXI_{VMT_{RES}} = internal-external VMT made by SACOG residents

IX_{VMT_I} = VMT originating at zone I

XI_{VMT_I} = VMT ending at zone I

HH = Households in zone I

EMPTOT = Jobs in zone I

FOOD = Jobs in Food sector in zone I

RET = Retail jobs in zone I

SVC = Service Jobs in zone I

- Work tour IX-XI VMT by TAZ for external employment/retail VMT. This is completed by multiplying the vehicle trips by external worker for each TAZ with the average estimated trip distance outside the region using Replica (Spring 2019) mobility data. Vehicle trips by external worker are calculated using the following formula.

$$\text{Vehicle Trips by External Worker} = \text{External Worker} * 1.7 * (0.89 + 0.11/2.34)$$

Where:

1.7 – Person to Vehicle Trip Factor

0.89 – drive alone trip mode share

0.11 – shared ride trip mode share

2.34- shared ride vehicle occupancy factor

² SACOG, SACOG Outside the Region VMT Estimation, https://www.sacog.org/sites/main/files/file-attachments/draft_vmt_ixxi_documentation_0.pdf?1622243676

³ https://www.sacog.org/sites/main/files/file-attachments/outside_sacog_vmt_estimation_steps_0_0.xlsx?1626798833

Household Generated VMT by Parcel

All household generated II VMT are summed for each parcel as described above.

All household generated IX-XI VMT or external travel by residents for each TAZ (as described above) are divided by total population of each TAZ to calculate Household generated IX-XI VMT per person per TAZ.

- Household generated IX-XI VMT for each parcel is then calculated multiplying household size for the parcel and Household generated IX-XI VMT rate for the TAZ that the parcel belongs to.
- Finally, the II and IX-XI VMT for each parcel is summed to get total household generated VMT.

Employment Center Generated Work Tour

- VMT from II work tours as described above are summed for each employment parcel.
- Work tour IX-XI or VMT by external workers (as described above) for each TAZ is divided by external employees for respective TAZ. This results in the rate of IX-XI VMT by external workers for each TAZ.
- Employment center generated IX-XI work VMT for each parcel is then calculated multiplying the number of employees and rate of IX-XI VMT by external workers for the respective TAZ that the parcel belongs to.
- Finally, the II and IX-XI VMT for each employment center parcel is summed to get total employment center generated VMT.

Retail/Public facilities Generated VMT

VMT from II tours as described above are summed for each retail or public facilities parcel.

Work tour IX-XI or VMT by external workers (as described above) for each TAZ is divided by external employees for respective TAZ. This results in the rate of IX-XI VMT by external workers for each TAZ.

Retail/public facilities generated IX-XI work VMT for each parcel is then calculated multiplying number of employees and rate of IX-XI VMT by external workers for respective TAZ that the parcel belongs to.

Finally, the II and IX-XI VMT for each retail/public facility parcel is summed to get total retail/public facilities generated VMT.

Table 1 compares the three major types of VMT metrics calculated using EGSIM20.

Table 1: VMT Methodology Comparison by Project Type

VMT Analysis		Residential Projects	Office/ Industrial Projects	Retail/ Public Facilities Projects
Analysis Methodology		Household generated VMT per service population	Work Tour VMT per service population ⁽¹⁾	Retail/Public facilities Generated VMT per service population
HBW ⁽²⁾	1-2-5	Y	Y	Y
HBO ⁽³⁾	6-7	Y	N	Y ⁽⁸⁾
NHB ⁽⁴⁾	3-4	Y	Y	Y
IX-XI ⁽⁵⁾	External travel by residents	Y	N	N
	Travel by external workers	N	Y	Y
XX ⁽⁶⁾		N	N	N
Commercial Vehicle ⁽⁷⁾		N	N	N

Notes

1 - Service Population = Residents + Employees + Students

2 - HBW = Home-based work tour, includes intermediate stops

3 - HBO = Home-based other tour (shopping, personal business, medical, school, recreational etc.), includes intermediate stops

4 - NHB = Non-Home-based tour (tour that begin and end at a non-home location i.e., sub-tours), includes intermediate stops

5 - IX-XI = Internal-External / External-Internal,

External work travel by residents who reside within SACOG but work outside the region.

Travel by workers that reside outside SACOG region but work within the region.

6 - XX = External-External Travel, Trips that do not have any stops within SACOG region

7 - Commercial Vehicle = Trips by commercial vehicles (small-large trucks)

8 - Only includes Customer/Visitor Tour (Tours at employment location by people who do not work there). The following trip purposes are included:

- Personal Business/ Medical
- Shop
- Meal

VMT Per Service Population by Land Use Type

All the VMT generated by the three types of projects are summed to get total VMT by each parcel. Then the total VMT is divided by service population to get VMT per service population or each parcel. The data is then summarized by land use type to get the VMT per service population by LU type.

VMT Threshold Estimation

All the VMT generated by the three types of projects are summed to get total VMT by each parcel. Then the total VMT is divided by service population to get VMT per service population or each parcel. The data is then summarized by land use type to get the VMT per service population by LU type.

The EGSIM20 Travel Demand Model is a tool for implementing the General Plan (i.e., like General Plan policy and actions), like Policy MOB-1-1. Consistent with CEQA Guidelines, § 15064.7, the City selected VMT per service population as the preferred performance metric, for implementing its VMT policy. The

VMT per service population metric is useful since it captures these trip reduction benefits and accounts for travel from the full range of users and not just residents or just workers.

With the development of EGSIM20 and associated calibration and revalidation, the VMT performance measures were re-estimated to provide a consistent basis of evaluating the Project, a key requirement of SB 743, to ensure that the effects of the Project are accurately identified. **Tables 2 and 3** summarize the VMT limits at General Plan Buildout (i.e., for the City limits and study areas) and VMT by General Plan land use category, respectively, using the VMT calculation methodology outlined above.

Table 2: Daily VMT Limit by Study Area (Re-estimated)

City Limit and Study Areas	VMT Limit
City Limit	8,066,247
North Study Area	27,383
East Study Area	584,786
South Study Area	1,594,674
West Study Area	773,103

Source: Fehr & Peers, 2024

Table 3: Daily VMT Per Service Population by Land Use Category (Re-estimated)

Land Use Designation	VMT Per Service Population	
	Base Year (2020)	VMT Limit ¹
Commercial and Employment		
Community Commercial (CC)	31.4	26.7
Regional Commercial (RC)	31.7	27.0
Employment Center (EC)	23.8	20.2
Light Industrial/Flex (LI/FX)		22.5
Light Industrial (LI)	26.4	22.5
Heavy Industrial (HI)	31.2	26.5
Mixed Use		
Village Center Mixed Use (VCMU)	-	19.7
Residential Mixed Use (RMU)	-	18.8
Transect		
General Neighborhood Residential (T3-R)	-	20.7
Neighborhood Center Low (T3)	-	21.1
Neighborhood Center Medium (T4)	-	20.2
Neighborhood Center High (T5)	-	15.7
Public/Quasi Public and Open Space		
Parks and Open Space(P/OS)	-	NA ²
Resource Management and Conservations (RMC)	-	NA ²
Public Services (PS)	-	-
Residential		
Rural Residential (RR)	29.6	25.2
Estate Residential (ER)	24.2	20.6
Low Density Residential (LDR)	22.7	19.3
Medium Density Residential (MDR)	21.0	17.9
High Density Residential (HDR)	20.8	17.7
Other		
Agriculture (AG)	-	-

Notes

1 - VMT Limit is 85% of average base year VMT per service population for parcels with land use designation or VMT per service population at buildout for land use designation that do not exist in the base year.

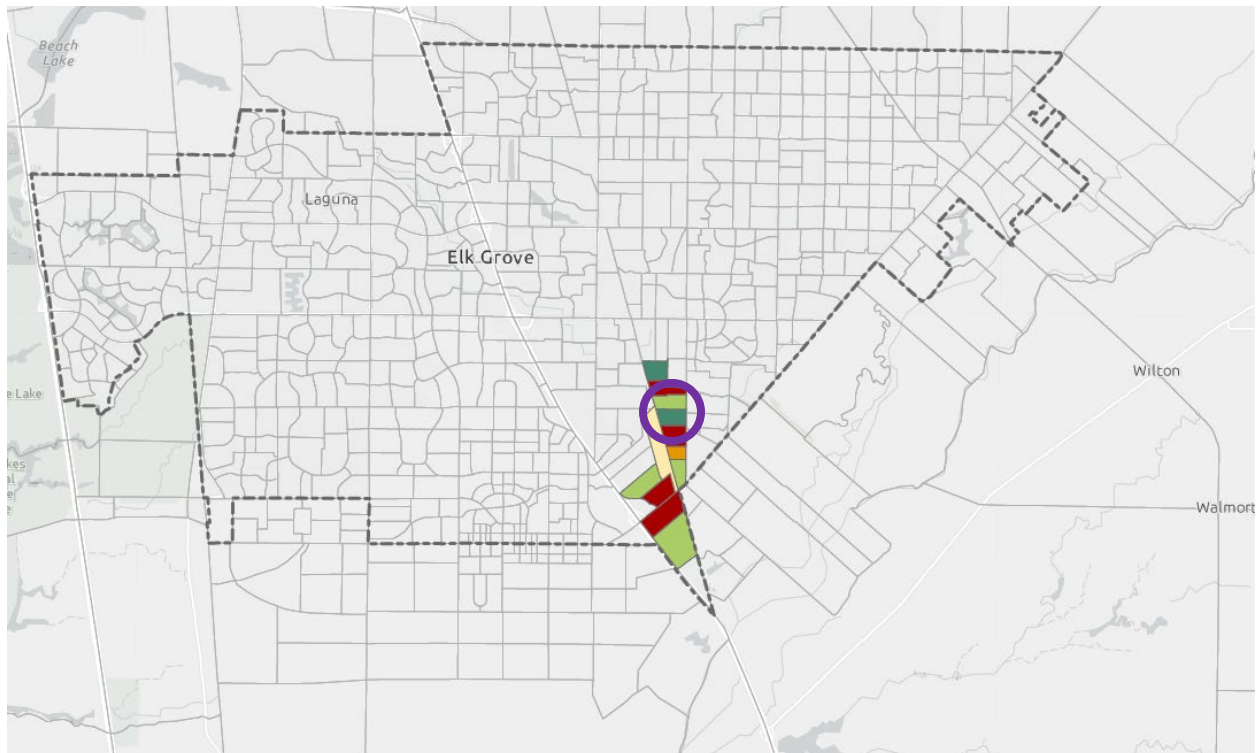
2 - These land use designations are not anticipated to produce substantial VMT, as they have no residents and few to not employees.

Source: Fehr & Peers, 2024

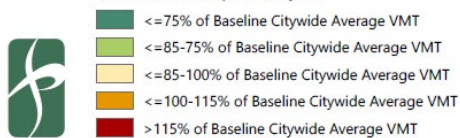
The analysis of Project vehicle miles traveled (VMT), relative to the re-estimated VMT limits and VMT by General Plan land use category presented in **Tables 2 and 3** above, is discussed above.

VMT Screening

The proposed Project is located within an area (as outlined in **purple** below) that would operate at or below 15 percent of the average service population VMT established for the Heavy Industrial (HI) land use designation if built to the specifications of the Land Use Plan.



VMT Per Service Population by TAZ



VMT Per Service Population for Heavy Industrial within City of Elk Grove Compared to VMT Limits (26.5)

VMT by General Plan Land Use Category

Typically, no further analysis would be required for projects located in a pre-screened area that are consistent with the General Plan land use designation. However, additional analysis is required for the proposed project to confirm that the project satisfies the 20% reduction in VMT for GHG purposes, consistent with the requirements of the City's Climate Action Plan (CAP). EGSIM20 was used to calculate the VMT per service population for the parcels that represent the proposed project.

Table 4 compares the Project’s VMT per service population (i.e., employees, students, patients, and visitors) to the City’s VMT limit for the Heavy Industrial land use (which incorporates a 15% reduction in total VMT from the 2020 baseline). As shown in **Table 4**, the Project’s VMT per service population would be 19.2. That VMT performance would be 27.4% lower than the City’s VMT limit for the Heavy Industrial land use.

Table 4: VMT by Land Use Designation Limits – Buildout Conditions

General Plan Land Use Designation	VMT Per Service Population			
	VMT Limit	Project VMT	Difference	Percent Difference
Heavy Industrial (HI)	26.5	19.2	-7.3	-27.4%

Source: Fehr & Peers, 2024

To help aid lead agencies with SB 743 implementation, the Governor’s Office of Planning and Research (OPR) produced the Technical Advisory on Evaluating Transportation Impacts in CEQA4 (December 2018) that provides guidance about the variety of implementation questions they face with respect to shifting to a VMT metric. Key guidance from this document relevant to estimating VMT impacts from transportation projects includes the following:

CEQA Section 15064.3(a) defines vehicle miles traveled as the amount and distance of automobile travel attributable to a project. The OPR Technical Advisory recommendations on methodology defines automobile as on-road passenger vehicles, specifically cars and light trucks. Therefore, consistent with CEQA Section 15064.3(a) and the definition of automobile provided in the OPR Technical Advisory, analysis of non-employee trips (such as those made by trucks) is not required. However, as outlined in Table 10 (VMT Methods) of the City of Elk Grove Transportation Analysis Guidelines (Adopted February 2019, Updated July 2023), the City of Elk Grove VMT forecasting methodology includes VMT based on all trips that have one end in the project location, including trips without an origin or destination at the home. Therefore, trips from visitors are included that may include heavy vehicle trips made by employees or visitors. Therefore, although not required by CEQA Section 15064.3(a) and the definition of automobile provided in the OPR Technical Advisory, the analysis includes all vehicle trips made by employees and visitors.

⁴ Governor’s Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018. https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

APPENDIX E

LEFT TURN ASSESSMENT

July 17, 2024

Mr. Logan James
BUZZ OATES CONSTRUCTION, INC.
 555 Capitol Mall, Suite 900
 Sacramento, CA 95814

RE: LEFT TURN ASSESSMENT – WATERMAN ROAD AT BRINKMAN CT LOGISTICS CENTER, ELK GROVE, CALIFORNIA

Dear Mr. James:

As requested, Flecker Associates has updated the original November 10, 2020 left turn assessment to determine whether there is a need for a northbound left turn lane on Waterman Road to provide access to your project on the west side of Waterman Road south of Brinkman Court. The project is located on a 9.95 acre parcel and includes a 180, 894 square foot one-story warehouse building.

Access is proposed at three driveways on the project’s approximate 850 feet of frontage on Waterman Road. The site plan (Figure 1) indicates that the north and south driveways will provide truck access to the loading docks along the east side of the building. Both driveways and the center driveway are intended to provide access to employee parking along the perimeter of the site.

Trip Generation Rates. The Institute of Transportation Engineer’s publication *Trip Generation, 11th Edition*, provides six types of warehouses. They are described in Table 1.

TABLE 1 ITE TRIP GENERATION WAREHOUSE TYPES / DESCRIPTIONS	
Type / Land Use Code	Description
Warehousing (Land Use 150)	A warehouse is primarily devoted to the storage of materials, but it may also include office and maintenance areas.
Mini-Warehouse (LU 151)	A mini-warehouse is a building in which a number of storage units or vaults are rented for the storage of goods. They are typically referred to as “self-storage” facilities.
High Cube Transload_Short Term Warehouse (LU 154)	A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/ or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses. A transload facility has the primary function of consolidation and distribution of pallet loads (or larger) for manufacturers, wholesalers, or retailers.
High Cube Fulfillment Center Warehouse (LU 155)	A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/ or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses.

High Cube Parcel Hub Warehouse (LU 156)	A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/ or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses. A high-cube parcel hub warehouses typically serves as a regional and local freight-forwarder facility for time sensitive shipments via airfreight and ground carriers. A site can also include truck maintenance, wash, or fueling facilities. Some limited assembly and repackaging may occur within the facility.
High Cube Cold Storage Warehouse (LU 157)	A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/ or consolidation of manufactured goods prior to their distribution to retail locations or other warehouses. A high-cube cold store warehouse has substantial temperature-controlled environments for frozen food and other perishable products.

The proposed project is being built as a “spec” warehouse; therefore, the specific type of warehouse is unknown; a mini-warehouse (LU 151) is not a suitable use and was rejected as an option. Based on the warehouse descriptions above it is also unlikely that the project would fit LU 155, Fulfillment Center or LU 156, Parcel Hub based on size, use and location. The transload warehouse could be a potential use, considering the sizes of the warehouses in the *Trip Generation* data is as low as 131 ksf. *Trip Generation* shows that the Warehouse and Transload and Short Term Warehouse land uses have had the most data collected, which may indicate the most typical types of warehouse uses. Based on the information available, both the Warehouse (LU 150) and Transload and Short Term Warehouse (LU 154) were evaluated as possible land use types.

Trip Generation Forecast. Table 2 identifies the trip generation forecast for the project using the two potential trip generation categories. Assuming a conventional Warehouse space, the project could generate 34 trips in the a.m. peak hour and 38 trips in the p.m. peak hour. Alternatively, using High Cube Warehouse rates the project is expected to generate 18 a.m. peak hour trips and 20 p.m. peak hour trips.

Assessment of the Need for Left Turn Lanes. This analysis is intended to consider whether a dedicated northbound left turn lane is needed at any of the driveways. Based on the November 2020 analysis the need for a left turn lane was based on discussion with City staff. The number of left turns expected at any one driveway was compared to the accepted turn volume threshold.

According to City staff at that time, there were no City guidelines that suggested a quantitative method for assessing the need for a separate left turn lane at driveways. However, there are City guidelines that note when a separate right turn lane is needed and is based on the right turn volume exceeding 25 vehicles per hour (vph). The previous study utilized the right turn methodology to determine whether a left turn lane might be needed. The current staff was contacted to determine whether the City has adopted a new methodology to determine the need for either right or left turn lanes; however, they are in the process of developing new standards. Since the City has yet to adopt a new methodology the previous methodology was used.

TABLE 2 TRIP GENERATION RATES ¹									
Source	Description	Quantity	Daily	AM Peak Hour			PM Peak Hour		
			Rate	Total	In	Out	Total	In	Out
LU 150 (Warehouse)	Autos	180.9 ksf	1.71	0.17	77%	23%	0.18	28%	72%
			309	31	24	7	33	9	23
	Trucks	180.9 ksf	0.60	0.02	52%	48%	0.03	52%	48%
			109	4	2	2	5	3	3
	TOTAL VEHICLES			418	34	26	9	38	12
LU 154 (High Cube Transload and Short-term Storage)	Autos	180.9 ksf	1.40	0.08	77%	23%	0.10	28%	72%
			253	14	11	3	18	5	13
	Trucks	180.9 ksf	0.22	0.02	49%	51%	0.01	47%	53%
			40	4	2	2	2	1	1
	TOTAL VEHICLES			293	18	13	5	20	6
¹ ITE Trip Generation, 11 th Edition ksf – thousand square feet numbers may not equal due to rounding									

The number of left turns occurring at the three project driveways was considered to determine whether it is likely that any driveway will have more than 25 vph making left turns. As the High Cube Transload Warehouse is projected to generate less than 25 vph, left turn lanes would not be necessary for this specific warehouse type.

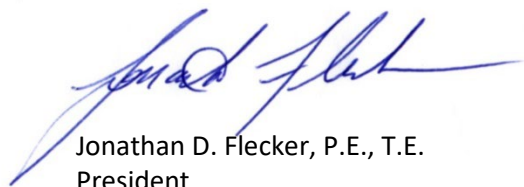
Using the Warehouse land use 26 vehicles are projected to enter the site during the a.m. peak hour. As the project is located in southern Elk Grove east of the SR 99 / Grant Line Road interchange, it is likely that more peak hour trips will arrive from this interchange than from the north along Waterman Road. An 80%/20% split is reasonable, with the assumption that all truck traffic approaches from the south and 20% of the employees either live in east Elk Grove or may commute via the north-south roads (Elk Grove-Florin Road, Bradshaw Road) from the South Sacramento area.

The site has three driveways and based on the location of employee parking along the perimeter of the site it is reasonable to assume that automobile trips will be divided mostly to the north and south driveways. It is assumed that 45% of automobile traffic will use each of these driveways while the remaining 10% will use the center driveway.

Based on these assumptions it is expected that the north and south driveways may have about 10 left turn trips into the site. This is below the 25 vph threshold; therefore, the project should not need to provide left turn lanes at its driveways.

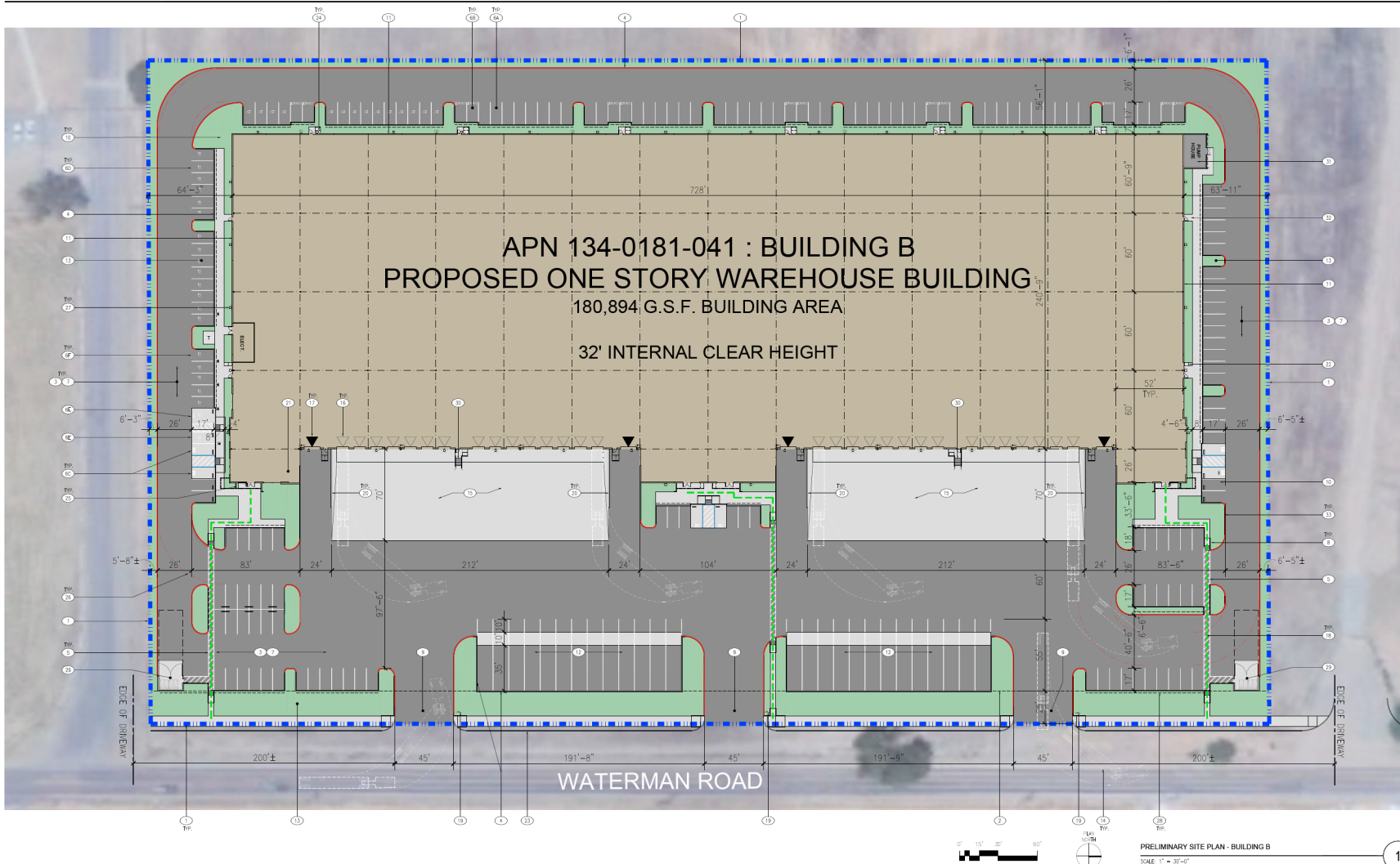
Should you have any questions please free to contact me at (916) 501-7513 or you may reach me via e-mail at jonathan@fa-transportation.com.

Flecker Associates.



Jonathan D. Flecker, P.E., T.E.
President

Attachments



Issue	Description	Date
A	ENTIREMENT PLAN AND APPROVAL	07-20-2024
B	REVISIONS TO DEVELOPMENT PLAN FOR PRELIMINARY COMMENTS	05-21-2024
C	REVISIONS TO DEVELOPMENT PLAN FOR PRELIMINARY COMMENTS	05-14-2024



SITE DATA:

APN:	134-0181-041
ZONING:	IND-1 (HEAVY INDUSTRIAL)
TOTAL GROSS SITE AREA:	43,845 SF = 1.0 ACRES
BUILDING AREA:	180,894 SF
SITE COVERAGE:	41.27%
CONSTRUCTION TYPE:	RR
BUILDING HEIGHT:	42'-0"
NUMBER OF STORES:	1
PARKING:	180 STALLS TOTAL

ACCESSIBLE & DESIGNATED PARKING STALLS (AS SHOWN AND PROVIDED)
PER 2022 CBC TABLE 11B-206.2.1.1 TO 206 STALLS, 8 ADA STALLS REQUIRED BY 2024 ADA 118 TO 100 ADA ACCESSIBLE STALLS, 8 ADA STALLS (INCLUDING 1 VAN ACCESSIBLE STALL) PROVIDED.
PER 2022 CALIFORNIA GREEN BUILDING CODE TABLE 6.06.3.1.1.1 10 STALLS, 20 STALLS ARE TO BE ELECTRIC VEHICLE CAPABLE STALLS.
FOR THE ELECTRIC VEHICLE CHARGING STALLS AND TOWER ELECTRICAL VEHICLE CHARGING STATIONS (EVCS) PROVIDED WITH EVCS.
PER CBC TABLE 11B-206.2.2.1.1 TO 20 EVCS STALLS, 1 VAN ACCESSIBLE STALL, 1 BICYCLE ACCESSIBLE EVCS AND 2 AMBULATORY EVCS ARE REQUIRED.
FOR THE ELECTRIC VEHICLE CHARGING STALLS AND TOWER ELECTRICAL VEHICLE CHARGING STATIONS (EVCS) PROVIDED AS SHOWN.

SITE LEGEND:

BUILDING AREA	ASPHALT AREA	EXISTING PROPERTY LINE	9' X 12' OVERHEAD DOCK LEVEL DOOR	FIRE DEPARTMENT TURN RADIUS
SITE CONCRETE	LANDSCAPE AREA	12' X 14' OVERHEAD DOCK LEVEL DOOR		

KEYNOTES:

- EXISTING PROPERTY LINE NOT SHOWN
- (DOTTED)
- PARKING AND DRIVE ISLES TO BE ASPHALT, CONCRETE OR I.P. SEE CIVIL FOR MORE INFORMATION.
- TYPICAL 4" TALL X 6" WIDE CONCRETE CURBS, SEE CIVIL DRAWINGS
- TYPICAL 4" WIDE TRAFFIC STRIPES
- TYPICAL PARKING:
 - STANDARD STALLS: 12' X 20' OR 12' X 22' WITH 2' PARKING OVERHANG
 - CONCRETE STALLS: 9' X 20' OR 9' X 22' WITH 2' PARKING OVERHANG WITH 3' OR 6" WIDE PARKING STRIPES AS SHOWN (SEE DETAIL 10/01.4)
 - ELECTRIC VEHICLE CHARGING SPACES (STALLS LABELED TO CHARGING ONLY), 100' SIDE ISLES TO FACILITATE FUTURE EQUIPMENT INSTALLATION
 - ACCESSIBLE ELECTRIC VEHICLE CHARGING STALL 1 VAN, 1 STANDARD PROVIDED WITH EVCS
 - EV CHARGING STATION, ELECTRIC VEHICLE (CELEBRATED STALL WITH EVCS)
- TYPICAL DRIVE ISLE, 20'-0" WIDE MINIMUM WIDE PARKING OCCURS, 20' MINIMUM WIDE NO PARKING OCCURS, SEE DETAIL 9/A01.4
- PROPOSED LOCATION OF NEW FIRE ACCESS DRIVE CURB OUT, SEE CIVIL DRAWINGS
- NEW CONCRETE RESTROOM BATHS, SHOWS ALL DETAILS TO BE ACCESSIBLE FROM UP TRAIL, SLOPE NOT TO EXCEED 1:50 (2%) IN DIRECTION OF TRAVEL, SLOPE SHALL NOT TO EXCEED 1:50 (2%) WHERE PARKING OCCURS, INCLUDE MINIMUM OF 10'-0" MIN. PROPOSED BUILDING EXTERIOR WALLS TO BE 12" X 16" REINFORCED CONCRETE WALLS WITH REBAR, AN ALUMINUM CLADDING AND A WEIR-CURB PART PANEL TO OCCUR AT THE ENTRANCE SIDES OF BUILDING, SEE EXTERIOR ELEVATIONS, STREET SCENE
- SEMI TRUCKS PARKING STALLS 12' X 20' W/ CONCRETE DOLLY PAD THROUGHOUT TRUCK PARKING, TYP. CONFORM DETAIL AND LOCATION BY D.C. BEFORE INSTALLATION
- TYPICAL LANDSCAPE PLANTED AREA, SEE LANDSCAPE COMMENTS
- SEMI TRUCKS TRAILER TEMPLATE SHOWN FOR REFERENCE ONLY
- 10' DEEP CONCRETE TRUCK DOCK AND 60'-0" MIN CLEAR CONCRETE APPROACH / WAREHOUSING AREA
- LOADING DOOR RAIL, 10' DOCK, TYPICAL
- GRADE LEVEL, RAIL UP DOOR, TYPICAL
- PAVED GREEN PAVEMENT INDICATES PATH OF EDGES / FINISHES FROM BUILDING PRIMARY ENTRY TO PARKING TRUCKS AND APPROXIMATE PARKING TRUCKS TO BE FORWARDED AREA OF APPROXIMATE REDUCED
- LOCATION OF FIRE ENTRY DOOR REGARDING PARKING IN ACCESSIBLE PARKING STALLS, SEE DETAIL 15/A01.4
- 6" WIDE X 6" TALL CONCRETE CURBS WITH GRANULAR AT EACH SIDE LOADING DOORS, TYP. SEE DETAIL 16/A01.4
- LONG TRUCK BICYCLE STORAGE TO BE PROVIDED IN A SECURE DESIGNATED AREA WITHIN BUILDING AT THE END OF TRUCK APPROACHMENT
- BICYCLE RACKS, SEE DETAIL 16/A01.4
- LINE OF EXISTING STREET CURB
- DAKIN-OUT INDICATES AREA OF ASBESTOS REMOVAL
- SHARPE LINE OF ENTRY CANOPY ABOVE SEE FLOOR PLAN AND EXTERIOR ELEVATIONS
- FIRE DEPARTMENT FIRE APPARATUS TURN TEMPLATE 25' INSIDE RADIUS & 50' OUTSIDE RADIUS
- WALL PACK BUILDING LIGHTING
- SHARPE LINE INDICATES 2'-0" PARKING OVERHANG
- TRUCK ENCLOSURE W/ HOIST APPROACH, SEE DETAILS 1 & 2/A01.4
- PREPARED STEEL STAIR & RAILLARDS (WHERE APPLICABLE) - ENHANCE LANDINGS AT STAIRS WITH AREA OF SERVICE
- LOCATION OF FIRE PUMP HOUSE & CONTROL ROOM, FIRE PROTECTION EQUIPMENT PROVIDED UNDER REARFIRE PERMIT
- TYPICAL LEVEL LANDING AT ALL EXTERIOR MAIN DOORS, ITS MAX SLOPE AWAY FROM BUILDING FACE LANDING SHALL BE 1:50' DEEP AND ADA WITH THE OUTSIDE EDGE OF THE DOOR FRAME ON THE INSIDE SIDE OF DOOR AND SHALL BE 2'-0" MIN PART THE STAIRS SIDE OF THE DOOR LANDING TO BE ASPHALT AT TRUCK DOCK SIDE AND GATE SIDE OF BUILDING, LANDING TO BE CONCRETE AT SOUTH AND WEST ELEVATIONS
- RED LINE INDICATES FINISHED TOP OF FRONT OF CURB TO BE PAINTED RED, STRIKE "NO PARKING FIRE LAKE" IN 3" DOCK WHEEL LETTERS EVERY 20' FEET